

NEW ZEALAND'S WORST INTERNAL AIR DISASTER

Kaimai CRASH



National
tragedy
says P.M.

Wellington correspondent
This is a tragic news. It
is a tragedy for the
people of New Zealand
and the Prime Minister
said he was giving the
air disaster his
deepest sympathy and
condolences to the families
of those who were on board
at the time of the crash.

ment and all our heartfelt
support for the families
and relatives in this time of
grievous anxiety.
"I wish also at this stage
of all engaged in the search
for the aircraft under such
adverse and arduous
conditions."

NEW ZEALAND NATIONAL AIRWAYS CORPORATION
O.C.S. TRAVEL AUTHORITY — Not Transferable
TO: CITY/AIRPORT TRAFFIC OFFICER

The bearer Cheryl M.F.R.
is authorised to travel on the Corporation's service as follows:

DATE	FROM	TO	STATUS
3 July 1963	AK	TC	Now CONTINGENT
Report City 7:15 A.M.	Depart Airport 8:05 A.M.	P.M.	

Authorised by: [Signature] City: [Signature]
Designation: [Signature] Date: 24/6/63

No: S/ 32327

FOR TRAFFIC USE ONLY	
FLIGHT NO.	SEAT NO.
441	

This authority is issued and accepted by the holder named hereon subject to the limitations and exceptions in respect of passengers and baggage contained in Air Services Licensing Regulations, 1952, Amendments 1 and 3 and in the Corporation's Statutory By-Laws.



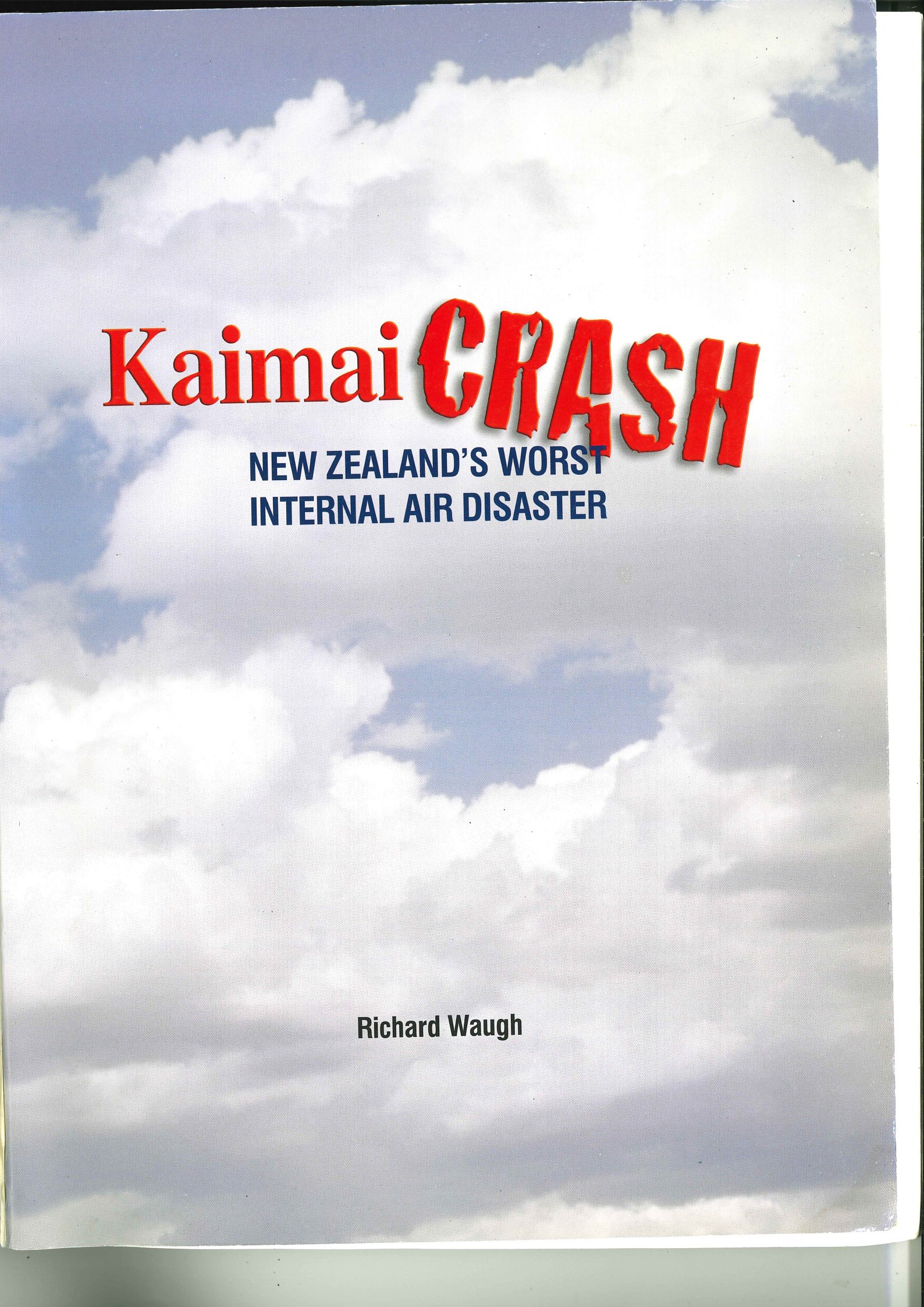
SKYLINER PLANE
MISSING
CHANGES

Area Renowned
For Turbulence
TAURANGA, Today

RICHARD WAUGH

CK

3.124
AUG



Kaimai **CRASH**

**NEW ZEALAND'S WORST
INTERNAL AIR DISASTER**

Richard Waugh

Front cover:

TOP: NAC DC-3 ZK-AYZ Hastings, newly converted to Skyliner configuration, photographed for promotional purposes in March 1963. (Mannering & Associates)

BOTTOM: The wreckage of DC-3 Skyliner ZK-AYZ with the port wing lying across the remains of the rear fuselage and tail section, a few weeks after the 3 July 1963 accident. Note the damage to the leading edge of the wing, which accident investigators considered suffered the initial impact. (Harm Mulder)

Rear cover:

The port wing of ZK-AYZ; one of the few remaining large pieces of wreckage still evident at the crash site in the Kaimai Range, January 2003. (Gary Johnstone)

Other aviation books edited and co-authored by Richard Waugh**TURBULENT YEARS**

A Commercial Pilot's Story

by Brian Waugh, edited by Richard Waugh
Christchurch, Hazard Press 1991 (Reprinted 1992 & 1997)

WHEN THE COAST IS CLEAR

The story of New Zealand's first and most unique licensed scheduled air service South Westland 1934-1967

edited by Richard J. Waugh

Contributing authors John King, Paul Beauchamp Legg & Richard Waugh
Invercargill, Craig Printing Company Limited 1994 (Reprinted 1996 & 2000)

STRAIT ACROSS

The pioneering story of Cook Strait Aviation

edited by Richard J. Waugh

Contributing authors Graeme McConnell, David Phillips & Richard Waugh
Invercargill, Craig Printing Company Limited 1995

EARLY RISERS

The pioneering story of Gisborne and Hawkes Bay Aviation

edited by Richard J. Waugh

Contributing authors John King, David Phillips & Richard Waugh
Invercargill, Craig Printing Company Limited 1997

ELECTRA FLYING

The Lockheed 10 Electra in New Zealand and the pioneering of the Main Trunk Air Service

edited by Richard J. Waugh

Contributing authors David Phillips & Richard Waugh
Invercargill, Craig Printing Company Limited 1998

SPANZ

South Pacific Airlines of New Zealand and their DC-3 Viewmasters

by Richard Waugh & Peter Layne

Invercargill, Craig Printing Company Limited 2000

TAKING OFF

Pioneering Small Airlines of New Zealand 1945 - 1970

Richard Waugh with Bruce Gavin, Peter Layne & Graeme McConnell
Invercargill, Craig Printing Company Limited 2003

These books are available from Craig Printing Company Limited; see contact details below

Also see Website: www.nzairlineresearch.co.nz

Published by The Kynaston Charitable Trust in conjunction with
Craig Printing Company Limited, PO Box 99, Invercargill.

©2003 Richard J. Waugh

The right of Richard Waugh to be identified as the author of this work in terms of section 96 of the Copyright Act 1994 is hereby asserted.

This book is copyright.

Except for the purposes of fair reviewing, no part of this publication may be reproduced or transmitted in any form without permission in writing from the publisher. All the photographs in this book are genuine. Only three have had minor digital enhancements.

ISBN 0-473-09542-4

Printed by Craig Printing Company Limited
122 Yarrow Street, Invercargill, New Zealand

Email: sales@craigprint.co.nz Website: www.craigprint.co.nz

Foreword



GOVERNMENT HOUSE
New Zealand

FORTY YEARS AGO, on 3 July 1963, 23 people died in what was then, and still is, the worst internal aviation disaster in New Zealand history.

The three crew and 20 passengers were on board a National Airways Corporation DC-3 flight from Auckland to Tauranga when the plane crashed in the Kaimai Range. The passengers represented a cross-section of New Zealand society: male and female, young and old, Maori and Pakeha, private travellers and business travellers.

In the prosperous days of the early 1960s, the crash came as a huge shock and made a deep impression. The crash dominated front page coverage in newspapers for days and prompted an outpouring of "Kiwi helpfulness", with locals helping in the search operation and providing food for the volunteers.

Today, the crash has been largely forgotten, mostly because there is no permanent memorial. This will change on 5 July 2003 when a major roadside memorial will be unveiled at Gordon, near Matamata. The memorial has a direct line of sight to the approximate area of the crash.

The erection of the memorial, and the publication of this book, have been made possible through the work of a small group of dedicated individuals. Full credit is due to the author, the Rev. Richard Waugh, and the members of the committee who have given so much of their time and energy to commemorate this tragic event.

A particular thank you must go to the relatives of the crash victims and to those involved in the search who have provided invaluable information. They have played a vital role in creating this comprehensive resource which is of great historical value and will be of interest to many New Zealanders.

THE HONOURABLE DAME SILVIA CARTWRIGHT
PCNZM, DBE
Governor-General of New Zealand



NEW ZEALAND'S worst internal aviation disaster in the Kaimai Range was not only a tragic event for the country but also a significant incident which forms part of our district history.

The National Airways Corporation DC-3 crash occurred in the Kaimai Range 40 years ago and the Matamata-Piako District Council is proud to be taking part in the commemoration events.

The accident happened in bad weather near Matamata during a scheduled flight from Auckland on 3 July 1963. Local residents and workers from Gordon Quarry first raised the alarm which instigated a major search operation.

The appalling weather conditions meant it was more than 24 hours before the wreckage was located.

Many Te Aroha, Matamata and district residents were involved in the search and I would like to take this opportunity to acknowledge the brave efforts of the searchers and other volunteers and especially the pioneer helicopter pilots.

It was a battle through torrential conditions for these hardy souls and an experience I am sure not one of them would ever be able to forget. Many local volunteers offered food for searchers while farmers volunteered their time and people offered transport to assist with the search efforts.

The Matamata-Piako District Council is pleased to be sponsoring a major memorial for this disaster which is of such national significance. We are also delighted that the event is being recorded and that this book will provide an accurate reference about the Kaimai crash tragedy for future generations. Our thanks to the organiser of the commemorations, the Rev. Richard Waugh, and his team, Bruce Gavin, Peter Layne and Graeme McConnell, for all their efforts.

HUGH VERCOE
Mayor of Matamata-Piako District Council

Dedication

*This book is dedicated to the memory of the
23 persons aboard New Zealand National Airways
Corporation Flight 441 on 3 July 1963*

The Lord is my shepherd; I shall not want.
He maketh me to lie down in green pastures:
He leadeth me beside the still waters.
He restoreth my soul:
He leadeth me in the paths of righteousness
for His name's sake.
Yea, though I walk through the valley of the shadow of death,
I will fear no evil:
for Thou art with me;
Thy rod and Thy staff they comfort me.
Thou preparest a table before me in the presence
of mine enemies:
Thou anointest my head with oil; my cup runneth over.
Surely goodness and mercy shall follow me
all the days of my life:
and I will dwell in the house of the Lord for ever.

(Psalm 23)

Eleanor Eileen Boddington

Huia Duncan Boddington

Leonard John James Cartmer

Shelia Maureen Cooney

Leonard Derek Enchmarch

Graham Clifford Frederick Flyger

Edward Lionel Goddard

Tuta Hongara Grace

William Bruce Gray

John Russell Hardley

Peter George Guinness Kissel

Herbert Edward Lewis

Gavin Andrew Long

Norman Geoffrey Morris

Frederick Charles Pullum

Sarah Te Raumiria Seymour

John Smith

Diane Veronica Taylor

Leslie Frederick Taylor

Frederick Tolerton

Ruth Tolerton

Elizabeth Jill Louise Wilson

Kenneth John Woodger

Acknowledgements

FOR MANY YEARS I have been busy researching, writing and publishing New Zealand aviation histories with a particular focus on the pioneering airline period from the 1930s to the 1960s. During this time there were nine tragic fatal airline crashes, including the Kaimai crash, in which a total of 12 crew and 61 passengers lost their lives. I have always felt a strong obligation to record these accidents and honour those who died so that their deaths will not be forgotten. From personal family experience I know the trauma that air accidents can bring and as an ordained minister it has been my privilege to officiate at many aviation related ceremonies/services.

As organiser of the Kaimai Crash Project I have worked closely with Bruce Gavin (Matamata), Peter Layne (Wellington) and Graeme McConnell (Nelson). These three aviation historians have made their special contributions to the planning for the 40th anniversary and without their assistance, and the kind forbearance of Patricia Gavin, Stephanie Layne and Pam McConnell, this book and the commemorations would not have been completed on time. Thank you to Bruce Gavin for his local organising and sourcing of information, to Peter Layne for his archival contribution, general NAC expertise and the two informative features in this book, and to Graeme McConnell for his map, graphic design work, editing advice and the special job of designing the two memorial plaques.

Thank you to my ever-patient wife Jane and children Simon, Theresa and Kristie. So often I thank them last when they deserve to be thanked first!

Many sources have been used to help write this book. These include some archival material from the Public Inquiry and the official Report of the Public Inquiry (No. 25/3/1338, Wellington, 28 November 1963), newspaper accounts, interviews and many letters and emails, photographs and memorabilia loaned by dozens of people.

There are many people to thank:

The families of those passengers who were on board Flight 441 made a special contribution. Thank you to the following who worked on behalf of other family members; Susan Bory, Ian Cartmer, Ann Cooney, Penelope Duncan, Robin Hardley, Alice Kerr, Trevor Kinder, Winona Long, Joyce Oliver, Michelle O'Neill, Susan Pullum, Elizabeth Reynolds, Sandy Saussey, Robin Smith, Patience Stirling, Patricia Sundberg, Dave Taylor, Nelson Tolerton, Penny Towers, Linley Wall, Morreen Walls and Flora White.

Thanks also to key informants Mike Alexander, Noel Johnson and Peter Lamont, who were prominent people in the difficult search and recovery work. Mike and Noel also contributed significantly to individual features. Thank you to Stuart Bubb and Gary Johnstone, who in more recent times visited the crash site and supplied helpful information.

The Kaimai Crash Project committee would like to thank the Governor-General of New Zealand, the Honourable Dame Silvia Cartwright, for her foreword, the Matamata-Piako District Council for their constant support and

Mayor Hugh Vercoe for his foreword, Air New Zealand (David Beatson and Bryan Wyness) for their practical assistance, the New Zealand Lottery Grants Board for a research grant and the Matamata Historical Society for their early endorsement of our work.

Also to John Harris, Kaimai Consultants Manager (Matamata-Piako District Council), who was helpful with local information and who supervised the design and building of the memorial cairn.

Jeff Pearce gave me early encouragement in 1999 for this book. Thank you to the following who helped in a variety of ways: Darren Alexander (Information Officer, Australian High Commission, Wellington), Des Anderson, Vicki Andrews, Roy Armstrong, Julie Baker, Laurie Barclay, John Barker, Marjory Beijen, Jackie Bishop, Errol and Judith Board, Greg Bowen, Snow Browne, Allan Buchanan, Alister Buckingham, John Cassidy, Neil Christophersen, Phil Coates, Michael Cook, Owen Cooney, Ralph Court, Gertrude Day, Larry Day, Pat Dolan (Mannerling & Associates), Richard Drake, Terry Farrelly, Rex Ford, Damon Forsyth, Amy Foughey, Gerry Franklin, Brian Gauld, David Gauld, Derek Goddard, Jim Gurney, Walter Guttery (Personal Archives Officer for Chief of Defence Force), Anton Hartevelt, Raymond Harding, Christine Harris of East City Wesleyan Church, Denise Harris, Adrienne Hawkins, Brian Head, Anne Hearn, Graham Heberley, John Henderson, Peter Hoggard, Norman Hogwood, Charles Hooke, Bob Howe, Bryan Johnson, Annette Kidd, Noel Locke, Geraldine Lopdell, Ron Macfarlane, Callum Macpherson of *Pacific Wings*, Don McLeod, Valerie Mason, L.K. Martin, Peter Martin, Harry Mather, Garry Mills, Nancy Morrison, Tony Mortiboy, Phyllis Moss, Pat Moulden, Harm Mulder, Peter Muller, Don Noble, Beth Okeby, Dinah Okeby, Heather Old, Nell Paenga, Graham Painter, Blair Parkes of Sound Archives Nga Taonga Korero, Gary Parris, Graeme Porter of *New Zealand Aviation News*, Mieke Proudfoot, Frank Rands of RNZN, Trish Reilly, George Rooker, Harry Russell, Val and Morgan Ryan, Doug & Ruth St George, Max Seymour, Tom Seymour, Joy Shaw, Paul Sheriff, Wilson Smaill, David Smyth, Wynne Spring-Rice, John Stacey, Joan and David Stanley of the Matamata Historical Society, Warren Stevenson, Laurie Stokes, the late Jim Sullivan and Beth Sullivan, Jim Sullivan of Sounds Historical, Basil Thorp, Frances and Brian Ward of Teichelmann's Bed & Breakfast, Lynlie Watson, Keith Wilkinson, Jill Wilson of Columba College and Stephen Woodrow.

Finally, thank you to the team at Craigs in Invercargill, especially Ellen van Empel who worked with me to design and complete this book, despite the tight deadlines. My hope and prayer is that this book will be an important part of the tribute to all those who lost their lives on Flight 441. May they rest in peace.

RICHARD J. WAUGH

Howick

Manukau City

May 2003

Contents

FOREWORD	3
Dame Silvia Cartwright, Governor-General of New Zealand	
Mr Hugh Vercoe, Mayor of Matamata-Piako District Council	
ACKNOWLEDGEMENTS	5
MAP <i>by Graeme McConnell</i>	8
1 "I'VE LOST AN AIRCRAFT"	9
• NAC and its DC-3 fleet <i>by Peter Layne</i>	
2 SETTLING IN FOR THE FLIGHT	17
• DC-3 Skyliner ZK-AYZ Hastings <i>by Peter Layne</i>	
3 "WE ARE TWO MINUTES OUT"	23
4 "THE WRECK HAS BEEN SIGHTED"	28
• Pioneering Helicopter Pilot at Work	
• One Searcher's Story	
5 "IN THE INTERESTS OF PUBLIC SAFETY"	46
• Crash Site through the Years	
COMMEMORATIVE POEM – <i>by Essie May Dodd</i>	60
APPENDIX – Memorial Plaques <i>designed by Graeme McConnell</i>	61
INDEX – <i>compiled by Peter Layne</i>	63

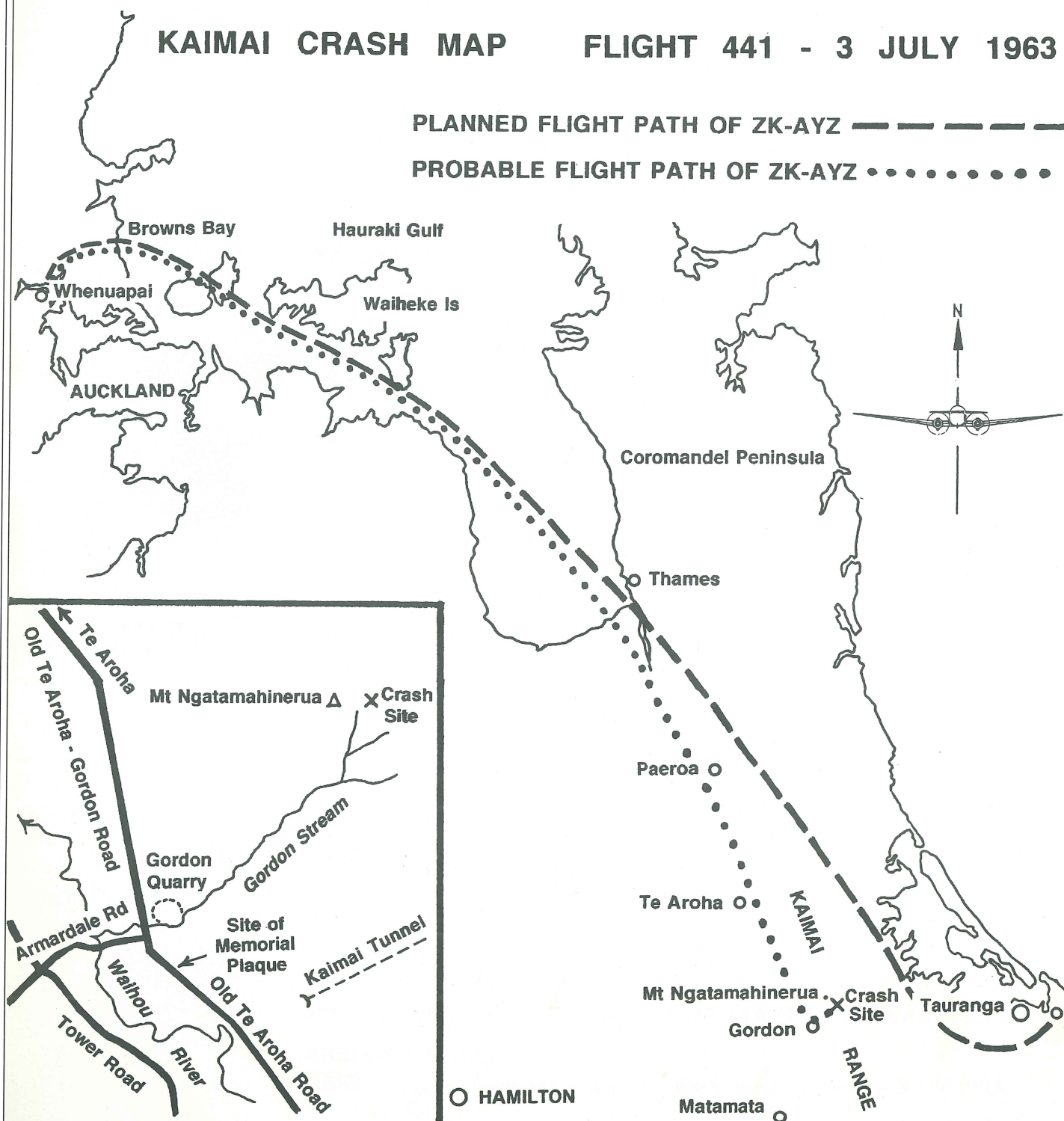


KAIMAI CRASH MAP

FLIGHT 441 - 3 JULY 1963

PLANNED FLIGHT PATH OF ZK-AYZ — — — — —

PROBABLE FLIGHT PATH OF ZK-AYZ



G McC May 2003

“I’ve *lost* an aircraft”

GUSTS OF 30 KNOTS, thick cloud and constant light rain made for an unpleasant winter’s morning at Tauranga Airport on Wednesday 3 July 1963.

In the Control Tower, Murray Christophersen, Station Air Traffic Controller, was busy with early morning duties including the first NAC flight of the day - 441 from Auckland, which was being operated by Douglas DC-3 Skyliner ZK-AYZ. At 9.06am a crew member, in a clear and confident voice, called the tower and said, “Tauranga, this is AYZ. We are two minutes out. Request descent to 4100.” Christophersen replied, “AYZ, this is Tauranga. You are clear to join Tauranga NDB at 4100. There is no delay expected, no other traffic in zone.” A short reply was received, “AYZ. Clear to join Tauranga 4100. Vacating 5500.”

Christophersen then moved to talk with the crew of another National Airways DC-3, Skyliner ZK-BQK, flying to Tauranga from Whakatane. The minutes ticked by and Christophersen called ZK-AYZ at 9.14am and again at 9.16am but there was no reply. Ashen faced he turned to relieving Controller Kenneth Lee and said, “I’ve lost an aircraft.”

At 9.20am the Matamata Police rang the Tauranga Tower advising that they had received a call a couple of minutes earlier from Gordon Quarry, south-east of Te Aroha, reporting heavy rain, the sound of aircraft engines lower than the Kaimai Range and that the engines roared then stopped abruptly. Search and Rescue was notified immediately and Christophersen kept calling ZK-AYZ from 9.21am until 10am without reply.

* * *

Earlier that morning, preparations for Flight 441 had proceeded normally with the aircraft engineers getting DC-3 ZK-AYZ ready for a busy day’s schedule. The pilots had got up early as they were expected at Whenuapai about an hour before the flight. Captain Len Enchmarch drove his car to the usual pick-up

PILOT I/C. 441
FLT. NOS.
DATE: 03/7/63

FLIGHT CLEARANCE

ZK- 712 AQU
(Sgd.) INITIALS B.J.

FLIGHT PLAN—Prepared by S1BY

SECT.	IPR VFR	FROM	TO	ALT.	TAS	MAG. TRK.	WIND M	WIND VEL.	DRIFT	MAC CO	G/S KTS	DIST. N.M.	TIME INT. MINS.	E.T.A.	Amended E.T.A.	A.T.A.
1	IFR	WP	ALT	→	115	105	050	35		090	90	20	13			
		ALT	TG		5500'	150	105	050	40	092	123	73	35			
													48			
2	IFR	TG	ALT	→	115	107	040	25		095						
		ALT	YS		7500'	150	107	030								
3	IFR	YS														

AIR DEPARTMENT - N.Z. METEOROLOGICAL SERVICE
RNZAF ops WP.
PERIOD 0700 to 1400 NZST / 0300 to 1100 GMT
NAC 441 660/662
SPANZ 396

FORECAST for FLIGHT/ROUTE/AREA

SYNOPTIC SITUATION
A large Depression covers the Nth Tas Sea and Nth N.Z.
WP - KT - WP
3 070 50
5 060 50
7 050 25
10 050 40
2-15
4-8 Ss Cu 1000-2000
8-25000
1000-2000
AcAsAc
Pbbs 600-1000 in Nth
7500
Freezing Level
Remarks
ICING
TURBULENCE
THUNDERSTORMS
HAIL
SQUALLS, etc.
NOTE: FU

Pa	Pa	Pa	Pa
3 060 20	5 040 20	7 040 20	10 040 20
3 060 25	5 040 20	7 040 20	10 040 25
5 050 30	7 040 20	10 040 25	
7 040 30	10 040 25		
10 040 25			

N.Z. NATIONAL AIRWAYS CORPORATION

(Operations Department)
MINIMUM PETROL REQUIREMENTS:
(Allow 2 galls. per full tank)

To DESTINATION
Destination to ALTERNATE:
For HOLDING
In RESERVE (minimum - 60 mins.):

TOTAL PETROL REQUIRED (in mins.):
TOTAL PETROL, in Gallons @ 70 g.p.h.:
For PILOT'S RUN-UP and TAXYING (gallons):

TOTAL PETROL REQUIRED IN A/c. TANKS:
(Sgd.) L.D. ENCHAMARCH Pilot
NAC PRINT

STATION
A/c.
FLT. No.:
DATE:

60	60
20	60
90	40
170	90
200	250
60	290 Gall
70	"
280	360 Galls.

FLIGHT PLAN FORM

TYPE OF FLIGHT	DEPARTURE AND LANDING	TRUE AIRSPEED	CRUISING LEVELS	ESTIMATED ELAPSED TIME	POINT(S) OF DEPARTURE EN ROUTE AND LANDING	TRUE AIRSPEED	CRUISING LEVELS	ESTIMATED ELAPSED TIME	TYPE OF AIRCRAFT	TIME OF DEPARTURE PROPOSED	ACTUAL	ORIGINATOR'S REFERENCE
IFR									DC3	0805		
1	IP	115	ASC	013	2 ALT	150	5500	035/015	3 TG	115	ASC	018
2	T	150	7500	020/015	5 YS	115	ASC	008	6 ALT	150	4000	024/015
3	R	115	ASC	010	8 2YZ	✓	✓	004	9 ALT	150	6000	015
4	A	✓	4500	005/015	11 PM	115	ASC	011	12 FO	150		

place at Point Chevalier then caught the airport bus to Whenuapai. First Officer Peter Kissel drove to the airport. Hostess Jill Wilson came out from the city by bus.

Upon arrival at Whenuapai the pilots went into the Flight Operations room and consulted with the stand-by crew, Captain Bryan Johnson and First Officer Gary Hogan, who had been at Whenuapai since before 7am. The stand-by crew had completed the flight plan and fuel docket including allocating extra fuel in case the DC-3 had to divert from Gisborne to Napier due to the forecast of poor weather on the route. A flight time of 48 minutes was calculated for the first sector to Tauranga at a cruising altitude of 5500 ft. Hogan had also done the obligatory radio check of ZK-AYZ by testing radio communications and ensuring the correct functioning of the radio compasses and distance measuring equipment (DME).

This flight preparation and the meteorology forecast were all carefully considered and approved by Enchmarch before he and Kissel went into the aircrew cafeteria for breakfast. During breakfast Hogan told Kissel that the radio check had been made and that the equipment was functioning satisfactorily.

*DC-3 ZK-AYZ, newly converted to 'Skyliner' standard, photographed for promotional purposes in late March 1963.
(Mannering & Associates)*



By this stage most of the passengers had arrived at Whenuapai in the bus from the NAC Air Centre at Victoria Street West in downtown Auckland. Passengers were headed for several different destinations as Flight 441 took the eastern route down the North Island and was scheduled to depart Whenuapai at 8.05am with stops at Tauranga, Gisborne, Napier, Palmerston North and arrive at Wellington at 1.15pm. After lunch ZK-AYZ was scheduled to fly to Wanganui and Hamilton before arrival back at Whenuapai at 5.40pm. The fare from Auckland to Tauranga was £2-12-0.

The Whenuapai terminal was a typically very busy place early on weekday mornings as several flights were getting ready for departure. Passengers checked in their baggage, which was carefully weighed, and then they waited in the bustle of the small terminal for their boarding call.

Three passengers who had booked on Flight 441 weren't at Whenuapai that morning. Charles Hooke, Manager of Felt & Textiles NZ Ltd, had planned to make a business trip to Gisborne and Napier but the day before his boss had asked him, instead, to speak at Massey University College of Manawatu and so his booking was swapped to a direct Wellington flight. Adrienne Isaac, a colour and design consultant for the same company, had also been booked on the flight but her plans had changed and she had flown to Wellington a few days earlier, with the ticket for Flight 441 still in her handbag. A passenger who was expected on Flight 441 was Roger Okeby, the NAC Tauranga Branch Manager. He had been in Auckland on business but rang the NAC office at 7am to cancel his early morning flight and change to the afternoon flight. The decision to cancel his booking was made at the last moment. He was a former wartime bomber and transport pilot, who had been awarded the DFC for his many

*By 1963 ZK-AYZ had been flying for NAC throughout New Zealand for over nine years. Its new Skyliner windows provided the 26 passengers with an excellent view.
(Mannering & Associates)*



LIST OF REPORTING ADDRESSES		
AUCKLAND	— Victoria Street West	Reservations 34-820
BLENHEIM	— 13 Queen Street	34-220
CHRISTCHURCH	— 104 Gloucester Street	2847
DUNEDIN	— 39 Crawford Street	Reservations 69-649
GISBORNE	— 37 Bright Street	Reservations 75-882
GREYMOUTH	— Nancarrow & Co., Mawhera Quay	6794
HAMILTON	— Cnr. Anglesa & Collingwood Sts.	8908
HASTINGS	— Cnr. Eastbourne St. & Railway Rd.	40-880-1
HOKITIKA	— Gold Band Taxis, Ravell Street	82-105
INVERCARGILL	— 27 Don Street	82-112
KAIKOHE	— Kaitake Bus Company, Raihara St.	134
KAITIARA	— Kaitake Travel Bureau, Redan Rd.	89-809
NAPIER	— 40 Dickens Street	89-065
NELSON	— 80 Trafalgar Street	193
NEW PLYMOUTH	— 154 Devon Street, West	Reservations 200
PALMERSTON	— Cnr. Main and Princess Streets	Reservations 8588
ROTORUA	— Rotorua Airfield	80-189
TAURANGA	— 17 Wharf Street	8403
TIMARU	— Windsor Buildings, Canon St.	77-149
WANGANUI	— 24 Victoria Avenue	1580-1
WELLINGTON	— Govt. Life Buildings, Customhouse Quay	5059
WESTPORT	— U.S.S. Coy. Ltd., 7 Wakefield St.	4089
WHAKATANE	— Whakatane Travel Centre, The Strand	Reservations 38-400
WHANGAREI	— Roseman & Warren, 24 James St.	38-000
Tic. Rev. 1/43		7279

YOUR

NAC

TICKET

IMPORTANT — If you are proceeding direct to airport, please check in at the NAC counter

AT LEAST **15** MINUTES

prior to aircraft departure time, otherwise carriage may be refused and fare forfeited.

T.42. **NEW ZEALAND NATIONAL AIRWAYS CORPORATION**

No: S/ **32327**

O.C.S. TRAVEL AUTHORITY — Not Transferable

TO: CITY/AIRPORT TRAFFIC OFFICER:-

The bearer, Chelby M. F.R. is authorised to travel on the Corporation's service as follows:

DATE	FROM	TO
3 July	AK	TC
7:15 A.M.	Depart Airport	8:05 A.M.
P.M.		P.M.

STATUS
Now
CONTINGENT

FOR TRAFFIC USE ONLY	
FLIGHT NO.	SEAT NO.
441	

Authorised by: [Signature] City: [Signature] Date: 2/6/63

Designation: [Signature]

Endorsements

This authority is issued and accepted by the holder named hereon subject to the limitations and exceptions in respect of passengers and their baggage contained in Air Services Licensing Regulations, 1952, Amendments 1 and 3 and in the Corporation's Statutory By-Laws.

Passenger Information

CANCELLATIONS: Two days' notice of cancellation of a specific reservation should be given to avoid penalty. This ticket will become invalid if not used for flight on date shown thereon. Any refund application must be lodged with an N.A.C. office or Agent within four weeks of the named date of travel, failing which, no refund will be entertained. If the ticket shows no specific flight and date it will become invalid six months from date of issue.

YOUR BAGGAGE: Free Allowance for adults and half fares—35lbs. Additional baggage can be carried at excess baggage rates. Passengers may also take into the cabin, free of charge, an overcoat, an umbrella, and other small items such as a vanity case, a brief case or small handbag, providing these items must be checked for carriage in aircraft lockers.

In order to obtain the full benefit of the free baggage allowance, families and other

passengers travelling as a party on the same aircraft to a common destination, may group their baggage for weighing purposes.

Baggage should be handed in at either the City or Airport Office for checking. As a receipt you will be given the butts from your baggage labels showing the destination to which your baggage will be forwarded—please be sure to check the destination showing on the butts. If you intend to claim your baggage at the destination airport or at an intermediate stop en route to the Air Centre, please be sure to have the Traffic Officer label it accordingly, i.e., "Airport Only" or "En Route" and obtain the appropriate Baggage Check.

Please do not attach articles such as tennis racquets, books, rugs, etc., to the outside of your suitcase — these should be properly packed as a safeguard against loss or damage.

YOUR FLIGHT NUMBER: Please memorise the Flight Number shown on your ticket. Departures at Air Centres and Airports will be called by Flight Numbers and friends meeting passengers at destination should quote the appropriate Flight Number when making enquiries.



ZK-AYZ's starboard engine starts up as the aircraft readies for take-off. (Don Noble)

*“... please board
your DC-3 Skyliner
aircraft ZK-AYZ
standing at
Gate Four.”*

operations against the enemy and was later reported as saying, “I think the old luck must still be holding.”

At 7.59am the flight was cleared by the NAC Traffic Section and soon the traffic staff gave the boarding call, “Passengers on National Airways Flight 441 to Tauranga, Gisborne, Napier, Palmerston North and Wellington please board your DC-3 Skyliner aircraft ZK-AYZ standing at Gate Four.” Passengers gathered their coats and hand luggage and made their way out to the gate, across the cold and windy tarmac to the shelter of the DC-3 where Hostess Jill Wilson gave each person a warm welcome and directed them to their allocated seats. A few minutes earlier Captain Len Enchmarch and First Officer Peter Kissel had boarded the DC-3 and taken their seats in the cockpit for final flight checks.

At 8.15am the crew requested and received clearance to taxi out for take-off. Jill Wilson would have checked the hat racks and passenger seatbelts and given the ‘all clear’ to the pilots and then taken her seat at the back. While taxiing, the aircraft was cleared on track to Tauranga via the Browns Bay locator beacon while climbing to altitude. In light rain at 8.21am, 16 minutes late, the DC-3 took off from Whenuapai on a flight New Zealand will never forget.

NAC and its DC-3 fleet

by Peter Layne



GOVERNMENT POLICY in the latter stages of World War II was to bring all air travel in New Zealand under Government control once peace resumed. In December 1945 the New Zealand National Airways Corporation Act was passed to enable a Government controlled operator to absorb the air services of all airlines which had been in place when hostilities broke out in 1939. Companies affected were Union Airways, Cook Strait Airways and Air Travel (NZ) Ltd.

Few of the pre-war airliners remained, so the focus was on the surviving Lockheed Electras of Union Airways, which had maintained a skeleton service throughout the war despite two serious accidents, one with fatal results. A Lockheed Lodestar had been made available in 1943 and most of the RNZAF Lodestars and several de Havilland DH89 Dominies were released in 1946. The name Union Airways was replaced on 1 April 1947 when New Zealand National Airways Corporation officially began operations and the 1945 Act was finally implemented.

Suitable aircraft were in short supply and so attention was given to acquiring some of the surplus RNZAF Douglas Dakota (DC-3) aircraft. This focus was in keeping with a world wide trend to turn these reliable warhorses into attractive DC-3 airliners. While first flown in 1935,

a decade later they had proven their worth in most facets of the war and had served on both sides.

NAC began acquiring DC-3s in 1947, initially to provide a freight service across Cook Strait and a main trunk passenger service between Whenuapai (Auckland), Paraparaumu (Wellington) and Harewood (Christchurch). The freight service was eventually absorbed by SAFE (Straits Air Freight Express) using two Bristol Freighters.

By late 1952 all the Electras and Lodestars had been withdrawn while the DC-3s continued to come on stream from the RNZAF until 1957. Small numbers of other aircraft including Dominies and Fox Moths serviced provincial airfields. In addition to operating within New Zealand to all major destinations, a few of the earlier DC-3s were fitted with advanced navigational aids and operated a regional service through the South Pacific until 1955 when they were replaced by international carriers. Two Sunderland flying boats had also run a regional service for NAC to Fiji until their withdrawal in May 1950.

With all the DC-3s operating solely within New Zealand, many large cities and towns were served by DC-3 aircraft which would ply up and down the country each week day and Saturday. On 3 February 1958 NAC introduced its first

turbo-prop Vickers Viscount between Auckland and Christchurch. NAC was then able to free up more DC-3s to serve on provincial services and to convert one of the passenger aircraft, ZK-AWO, into a freighter.

On 3 July 1963 ZK-AYZ was operating the Flight 441 schedule to Wellington. At Wellington a new flight number, 712, would have been issued for the northbound journey travelling Wellington-Wanganui-Hamilton-Whenuapai. Coincidentally, an NAC DC-3 service, originating in Christchurch to Wellington, Wanganui and Hamilton had been inaugurated by ZK-AYZ on 23 May 1955. The 441/712 North Island circum-navigational route was affectionately known as "Round the Rocks". A similar service originated each week day from Wellington to where the assigned aircraft and crew would also return each evening.

In all, NAC operated 30 DC-3s. Twenty-six had come from the RNZAF, two from Ansett ANA in Australia, one freighter on a long-term lease in 1960 from TAA and one DC-3 Viewmaster from SPANZ in 1966, following the cessation of that airline. One further RNZAF Dakota was accepted by NAC but was used as the baggage aircraft on the 1953/54 Royal tour before joining James Aviation as a topdressing aircraft. The first withdrawals of DC-3s from NAC service occurred in 1961 following the introduction of Fokker Friendship aircraft. Also in 1961, a further two passenger DC-3s (ZK-AQS and ZK-AZM) were converted into freighter aircraft. The DC-3s seemed reluctant to retire and this was largely because the regional airports were not upgraded to support the Friendships at the intended rate. Consequently DC-3s remained officially in service until August 1970. DC-3 ZK-AOF was reinstated on 6 June 1972, following its return from a lease in Fiji, and operated exclusively Christchurch-Timaru-Oamaru, with the last scheduled flight being from Timaru to Christchurch on 19 December 1974.



NAC's DC-3 fleet throughout the 1950s wore a scheme of polished metal with one red band at window level and another across the tail. (Des White via Bruce Gavin)

On a promotional flight in March 1963, the passengers are very comfortable in the newly refurbished Skyliner cabin of ZK-AYZ. (Mannering & Associates)



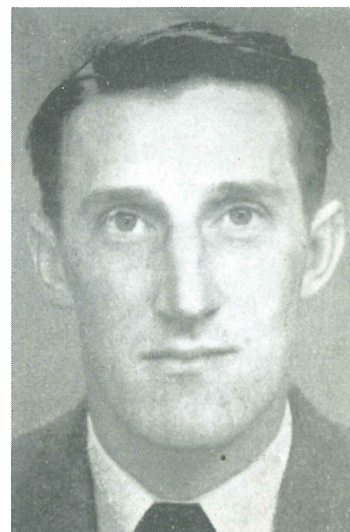
Settling in for the flight

SOON AFTER TAKE-OFF, at 8.26am, the crew of ZK-AYZ reported being over the Browns Bay locator and at 8.35am reported having reached a cruise altitude of 5500 ft. They gave an estimated time of arrival (ETA) at Tauranga of 9.14am. The crew then changed to the Tauranga radio frequency.

The wind velocity over this early part of the flight was about 30 to 35 knots and this might have caused some mild buffeting turbulence. With the climb over and the aircraft levelling out the passengers were settling in for the flight to Tauranga which normally took about 50 minutes.

Captain Len Enchmarch was 35 years old and was born in Auckland. He was educated at Takapuna Grammar School and graduated from the University of Auckland with a BA degree whilst working for the NZ Apple and Pear Marketing Board. He had originally intended becoming a teacher but instead applied to join NAC as a pilot, which he did in June 1954, soon after acquiring his commercial pilot's licence. He served as a First Officer on DC-3s and in 1960 was appointed Captain. Len had flown a total of 6639 hours, of which 3244 hours had been in command practice and as pilot in command. Of this experience 5687 hours had been gained on Douglas DC-3 aircraft. He was married with three young daughters and lived in Speedy Crescent, Birkenhead, Auckland.

First Officer Peter Kissel was 39 years of age and was born in Wellington. He attended Karori Primary School and Wellington College. He had been a very good track athlete including being national junior 440 yards champion. He joined the RNZAF and trained as a pilot, serving overseas and continued on in the Air Force after the war had finished. In 1952 he joined NAC and had flown a total of 10,014 hours, of which 6694 had been as second pilot on DC-3 aircraft. He was NAC's second most senior co-pilot. He was married with three young children and lived in Pupuke Road, Takapuna, Auckland.



CAPTAIN LEN ENCHMARCH
(Weekly News)



FIRST OFFICER PETER KISSEL
(Susan Bory)

*“Jill Wilson would
have moved from her
seat and started
handing out
magazines for people
to read and reassuring
passengers ...”*



HOSTESS JILL WILSON
(National Publicity Studios via Larry Day)

Jill Wilson was the hostess rostered on for Flight 441 and lived at Brighton Road, Parnell, Auckland. She was 22 years of age, born in Christchurch and educated at Columba College, Dunedin, and Canterbury University. In 1961 she was employed in National Airways Corporation's Christchurch reservations section and later as an information clerk for the airline at Christchurch Airport. After training she transferred to the Hostess section on 4 April 1963.

Jill Wilson would have moved from her seat and started handing out magazines for people to read and reassuring passengers she perceived to be nervous. This day Flight 441 had 20 passengers so six seats were empty. The passengers represented a cross section of people. Sitting in the front seats on the port side were Bruce Gray and Bert Lewis travelling together on business.

Bruce Gray was aged 35, married, with two young daughters and lived in Evelyn Road in the growing seaside suburb of Howick. He had been born in Waipukurau and educated at Napier Boys' High School and later at the University of Auckland School of Architecture where he gained his degree. After university he continued his studies overseas. For a number of years he had practised architecture as an associate of Mr George Tole of Auckland.

Aged 66, **Bert Lewis** was travelling with Gray to a Tauranga building job. He was married and lived in Haigh Avenue, Sandringham. Lewis was an electrician associated with an Auckland firm of architects. He had served for over 25 years with Turnbull and Jones and had been Workshop Manager of the Auckland Branch.

Behind Gray and Lewis sat **Sarah Seymour** and Len Cartmer. It was Sarah Seymour's 27th birthday. She was flying home from Australia and was looking forward to seeing family in Gisborne, especially her mother who was ill and had recently suffered a stroke. She had done her schooling at Whakawhitira



BRUCE GRAY
(via Jackie Bishop)



BERT LEWIS
(via Joyce Oliver)



SARAH SEYMOUR
(via Flora White)

DC3 CREW ROUTINES		NATIONAL NEW ZEALAND AIRWAYS	
DUTY : ONE DAY		COLUMN No. 5	
FLTS : 441X/712X			
0655	213 BUS FROM AIR CENTRE		
0720	REPORT OPS: UPLIFT FORECAST		
	FLT PLAN WP/TG/GS/NR/PM/WN		
0805	BREAKFAST		
0855	DEP WP		
0910	ARR TG		
1005	DEP TG		
1025	ARR GS: LIGHT REFRESHMENTS		
1110	DEP GS		
1125	ARR NR: UPLIFT SUPP FORECAST		
1215	DEP NR		
1230	ARR PM		
1315	DEP PM		
1350	ARR WN: LUNCH		
	UPLIFT FORECAST: FLT PLAN		
	WN/WU/HN/WP		
1430	DEP WN		
1515	ARR WU		
1530	DEP WU		
1640	ARR HN		
1655	DEP HN		
1740	ARR WP		

Duty time
0720 - 1755
10 hrs. 35 mins



LEN CARTMER
(via Ian Cartmer)



TUTA GRACE
(via Patience Stirling)



SHELIA COONEY
(via Ann Cooney)

School and Ngata Memorial College and then trained as a nurse at Cook Hospital in Gisborne. She had worked in Wellington and later in Australia with the Royal Flying Doctor Service in the Northern Territory and then at a Melbourne hospital.

Len Cartmer, aged 46, of Fitzroy Street, Papatoetoe, was a Senior Meat Inspector with the Department of Agriculture going to Gisborne on business. He was married with one son and had served overseas with the New Zealand Army during World War II. Cartmer often travelled on DC-3s with his work and had recently completed a tour of New Zealand collecting information for the department on the supply of venison for local and overseas markets.

The front starboard side seats were empty but behind was Able Seaman **Tuta Grace**, aged 20. He had been born in the family home at Whakapaurangi near Ruatoria on the East Coast. Tuta was educated at Waerenga o Kuri School, Ngata Memorial College and Gisborne Boys' High School. After leaving school he had joined the Royal New Zealand Navy as a cadet. Following training he had been posted to HMNZS *Lachlan* and from February 1963 had been loaned to HMNZS *Takapu*. He had taken his leave a day early so that he could get to Gisborne to attend the funeral of his nephew.

Sitting next to Tuta Grace was **Shelia Cooney**, aged 38, of Grey Street, Tauranga. She was born in Te Puke and had attended local schools before becoming a boarding student at St Mary's College in Ponsonby, Auckland. She was small in stature but strong of character. After leaving school her family had moved to Tauranga and she worked in her father's law office, together with her two brothers, Des and Jim, also lawyers. She worked as a legal secretary and did much of the organising and running of the office. The St. Joseph of Cluny Sisters in Tauranga had no transport at that time and Shelia always made herself available to drive them around. Her trip to Auckland had been to see one of her very dear friends, Sister Angela, who was flying back to Ireland, and now she was making her return journey home.

Each passenger probably chatted to those sitting beside them as the DC-3 Skyliner continued its journey through the rain showers, cloud and deteriorating weather.

DC-3 Skyliner ZK-AYZ Hastings

by Peter Layne

DOUGLAS DC-3 ZK-AYZ was built at the Douglas Aircraft Company plant at Oklahoma City, as a C47B-15-DK in 1944 - c/n 15204/26649. It was handed over to the Royal New Zealand Air Force on 22 November 1944 for delivery to New Zealand. Military DC-3 aircraft in New Zealand were known as C-47 Dakotas.

It had been given an interim American identity of 43-49388 but following arrival in New Zealand, with two other examples, it was given the RNZAF identity of NZ3528. These three Dakotas joined No 40 Squadron on 30 December 1944 and soon joined their stable-mates on transport roles delivering troops and equipment to and from the front line in the Pacific War. NZ3528 suffered a minor accident at Torokina in Bougainville on 20 August 1945 when it broke its tail wheel leg on landing. Apart from that incident, this Dakota led a trouble-free military career. The RNZAF had a fleet of 49 C-47A and C47B Dakotas. Shortly after the war finished all but one of the C-47As were scrapped and the survivors of the 34 C47Bs were retained in service.

In April 1947 the Government controlled New Zealand National Airways Corporation (NAC) came into being and ran all passenger and freight air transport operations. NAC progressively acquired most of the RNZAF Dakotas to meet its needs. In all, 26 C47Bs transferred from the RNZAF

along with the surviving C47A. The turn of NZ3528 came on 2 October 1951. This was what was known as the "repayment date", by which stage the aircraft had logged a total of 1025 hours. It was handed over to NAC at Woodbourne Air Force Base, Blenheim and took on the new civilian identity, ZK-AYZ. Following conversion in the corporation's workshop into a DC-3 airliner, it entered service on 22 December 1953 with the Maori bird name *Pohowhera* (Banded Dotterel). Although never corrected, the name should have been spelt *Pohowera*. Along with the other DC-3s it plied NAC's network of 23 cities and towns in a typical routine and reliable fashion.

The DC-3 fleet wore an overall scheme of polished metal with two red bands, one at window level and one high on the tail. In the mid 1950s thought was given to revamping the aircraft interiors but this did not proceed. In December 1960 SPANZ, a small private competitor arrived on the scene, initially with two DC-3 Viewmasters. The attractive Viewmasters soon had NAC realising that they would need to seriously face the new competition. The quick answer was to replace the paint scheme, introduced in the late 1940s, with one similar to that carried on their new Viscount and Friendship fleet.

In 1962 NAC's design team set about creating a very attractive revised

layout for their DC-3s to best meet the Viewmaster challenge. They produced a very good answer. It was realised that the existing fuselage frame could accommodate larger windows measuring 18" x 19" without making any major structural changes. Airlines overseas had made similar renovations. The outer metal skin, around the windows, could be removed and replaced with a new skin of a thicker gauge. When the DC-3s came up for Skyliner conversion, most of them were already wearing the new 1960s scheme and because of this, only changes to the fuselage paintwork were required.

In December 1962 NAC ran a competition among its staff to find a new "brand name", for the upgraded DC-3s and set a prize of 20 guineas. The response was astounding. More than 900 entries were received with 34 people choosing the name "Skyliner". According to an NAC staff release this result created the unexpected problem of how to get the cheque-writing machine to issue 34 cheques for 12/4¹/₄d each! It was decided to issue each winner with a cheque for £1-1-0! Although the chosen name was Skyliner, NAC officially branded them "DC-3 Skyliners" to avert any suggestion that the aircraft were not DC-3s.

Head Office approved the new design and work soon got under way with each aircraft fuselage being completely gutted for the alterations. Planned conversion time was three weeks for each aircraft.

A further subtle change was the introduction of new individual names pertaining to the provincial centres. All the Skyliners were named after towns that they served. Initially it was planned to convert 12 aircraft but eventually 14 Skyliners appeared.

In 1963 Napier's Beacons Airfield, located on land reclaimed during the Hawkes Bay earthquake on 3 February 1931, was upgraded to accommodate Fokker Friendship aircraft to serve the two Hawkes Bay cities of Napier and



ZK-AYZ awaiting civil conversion at Palmerston North in November 1951.
(via Don Noble)

BOOK Skyliner ON NEW ZEALAND'S SKYLINES!

Yes, N.A.C. proudly introduce
the NEW LOOK DC-3
WITH THE NEW NAME —
DC-3 Skyliner!

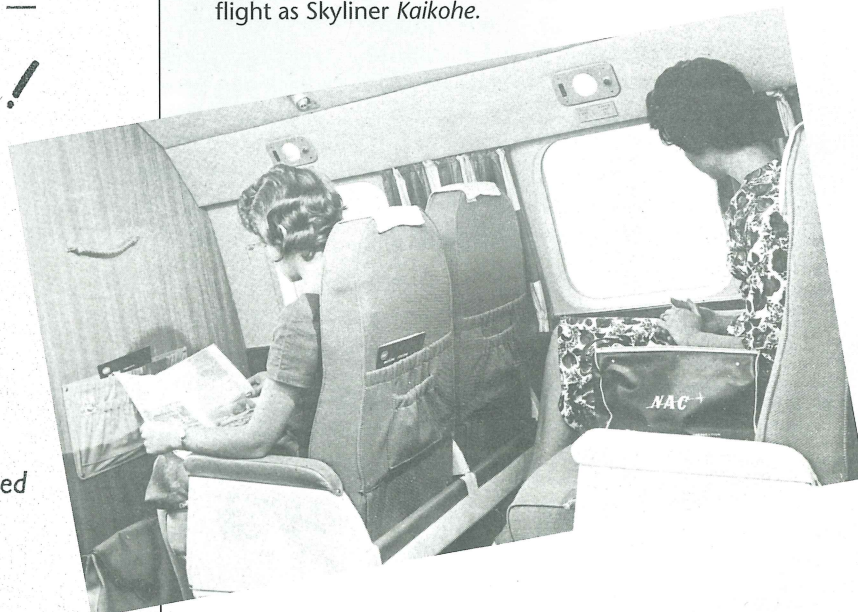
Soon to be introduced on all
regular DC-3 flights,
Skyliner has these
features —

- * Spacious new windows.
- * Comfortable new seating.
- * Tasteful modern decor, patterned on the Jet-Prop Friendship.
- * Improved air-conditioning, and new public address system.

Fly Skyliner soon!

Hastings. When the airport was officially opened on 15 February 1964 it was renamed Hawkes Bay Airport to emphasise that it was serving the cities of Napier and Hastings. The corporation had already been promoting this point and, in keeping with this spirit, named the first two Skyliners *Napier* and *Hastings*. The first Skyliner, ZK-AZN *Napier*, was rolled out on 3 March 1963 and began flying two days later on the Auckland-Napier service. Skyliner, ZK-AYZ *Hastings* commenced services in late March and was soon after used for a photo publicity shoot over Banks Peninsula. It was during this filming that photographs were taken by Pat Dolan of Mannering and Donaldson. The first two Skyliners also ran promotional flights including flights at Napier, Gisborne, New Plymouth, Auckland, Hamilton, Timaru, Westport, Oamaru and Hokitika. At Oamaru Airport on 7 April ZK-AYZ introduced 156 passengers to Skyliner comfort.

Other photographs taken on the Banks Peninsula flight were used in the 1963 winter edition of the airline's magazine *Airline Review*. The passengers on board ZK-AYZ on 3 July 1963 quite likely studied these pages during the course of their flight. According to a report given to the Court of Inquiry ZK-AYZ had completed 18,629 flying hours as at 1 July 1963. Of these, 17,604 had been while in NAC service. Including three leap year days occurring in its NAC ownership, Skyliner *Hastings* had spent just a few hours in excess of two years in the air in nearly 12 years of faithful airline ownership, typical of NAC's hard working DC-3 fleet. After the accident, DC-3 ZK-APK *Poaka* was selected on 3 August 1963 as a replacement for ZK-AYZ, and taken from storage. On 28 August 1964 it made its first flight as Skyliner *Kaikohe*.



“We are *two minutes* out”

WITH A GROUND SPEED of about 137 knots DC-3 ZK-AYZ was making good progress as it flew over the Thames coastline at 8.49am. The crew probably got brief glimpses of the ground which would have enabled them to confirm their position in relation to some identifiable parts of the coastline. If no visual sighting had been possible the crew could still do a DME (distance measuring equipment) reading from Whenuapai to check ground speed and a back bearing on the Browns Bay locator to give a track check. The DC-3 was on course and slightly ahead of time at this halfway point in the flight.

Most of the passengers had flown before but it is likely a few were feeling a little unwell because of the mild turbulence as the aircraft flew on. Jill Wilson would have been attentive to them and her confident manner helped set the tone in the cabin. Despite the poor weather she might have pointed out to passengers a few places of interest below as the DC-3 made its way towards Tauranga.

In the third row were two couples, both returning to Gisborne from an Automobile Association meeting in Auckland. On the port side sat ***Huia and Eleanor Boddington*** of Lytton Road, Gisborne. They were prominent members of the local Advisory Committee of the Automobile Association. Huia was aged 55, born in Feilding, and had moved to Gisborne in 1937 while in the electrical trade. He worked as an inspector for the Poverty Bay Electric Power Board and in 1957 went into business with Alistair Lawson doing electrical repairs. He was Dominion President of the New Zealand Institute of Electricians in 1961, was a member of the Gisborne Gun Club and an Honorary Wild Life Ranger. Eleanor, his wife, aged 54, was born in Gisborne as Eleanor Matthews, and had her schooling at Iona College in Havelock North. She was a talented tennis and golf player and regularly featured in local prize giving. With no children she gave much time to caring for her elderly mother.

On the starboard side sat ***Fred and Ruth Tolerton*** of Bulwer Road, Gisborne. Fred was 81 years of age and a long-time prominent Gisborne citizen.

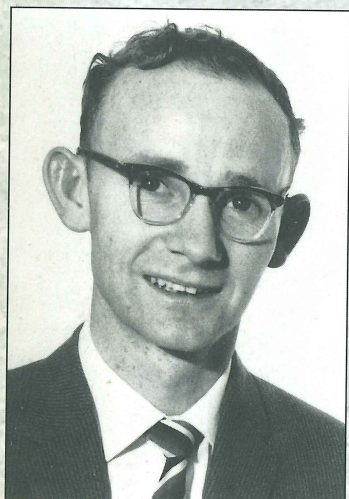


HUIA AND ELEANOR BODDINGTON
(via Trevor Kinder)

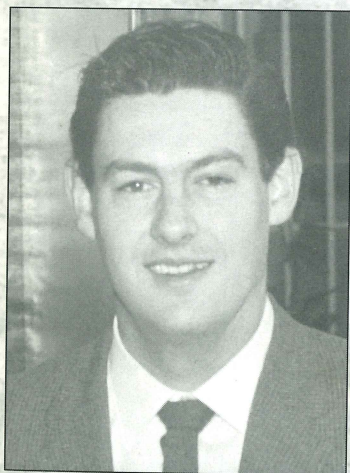




FRED AND RUTH TOLERTON (via Nelson Tolerton)



NORMAN MORRIS
(via Elizabeth Reynolds)



GAVIN LONG
(via Winona Long)

He was born in the farming district of Killinchy in South Canterbury and had transferred in 1920 to Gisborne as Manager of Nelsons (NZ) Ltd which operated the Taruheru Freezing Works. In 1930 he helped amalgamate the Waipaoa works with the Kaiti works under the name of the Gisborne Refrigerating Co, which he managed until his retirement in 1960, after a record 63 years in the freezing works industry. Fred was involved in a wide range of community service including being a Gisborne City Councillor (1938-1953) and Deputy Mayor (1947-1953) and had extensive involvement in the local Electric Power Board, Automobile Association, Poverty Bay A & P Association, Poverty Bay Turf and Racing Clubs and other organisations. His work often took him to Wellington and he was an early supporter of the 1930s pioneer Gisborne airline, East Coast Airways, as it sought to reduce the district's isolation, and always took an active interest in the later work of Union Airways and NAC. Fred had four children. Ruth, aged 58, was Fred's second wife. They had married in 1948. Ruth Winter had been born in Gisborne and attended Gisborne High School. She had worked at the Gisborne Refrigerating Co and also had owned a children's clothing shop in Gisborne.

Sitting behind the Boddingtons was another Gisborne passenger, **Norman Morris**, aged 30. Born in Gisborne of a well known family he attended Gisborne Central School, Gisborne Intermediate and Gisborne Boys' High School. His working life was in the retail clothing trade with the family business of Melbourne Cash Ltd. He lived in Clifford Street and was married with three young children. Norman had been to Auckland on a business trip and was also to visit Wellington but changed his direct flight to return home to pick up his young daughter, Elizabeth, and take her to spend time with her grandparents in Wellington.

Next to Norman Morris was 27 year old **Gavin Long** of Preston Road, Auckland. He was born in Wellington and attended Wellington Boys' College and later Kings' High School in Dunedin. After school he was involved in car

repair and panel beating work. During an overseas working holiday he met his future wife and they later had two children. Gavin worked for his father's Wellington company, Aluminium Distributors Ltd, and was transferred first to Palmerston North and later to Auckland. As the company's sales representative he was travelling to Gisborne on business.

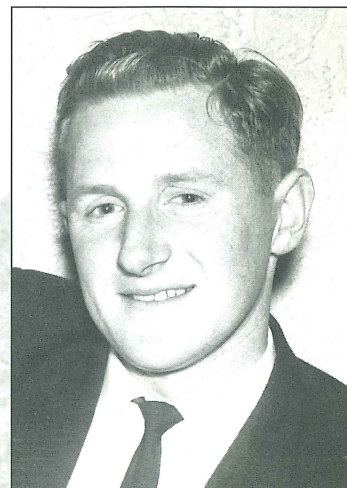
Across the aisle, sitting by himself, was **Graham Flyger**, aged 22. Born in Auckland he completed his early schooling at Grey Lynn Primary before the family moved to the North Shore where he attended Northcote College and later Mt Albert Grammar. He enjoyed cricket and hockey and was a prominent youth leader in the Methodist Church and the Boys' Brigade. He was unable to train as a pilot due to an eye injury but was always interested in aviation matters. Graham lived at Louvain Ave, Mt Roskill, and worked for Berlei (NZ) Ltd as a sales representative and was travelling to Tauranga and Gisborne on business.

A row behind on the port side sat **John Hardley** and Len Goddard. Hardley was 31 years old, born in Hamilton and educated at Hamilton Boys' High School. While studying for a science degree at the University of Auckland, the opportunity arose for him to go to England and study for a textile technology degree and he was then employed by ICI (NZ) Ltd. John was married with two young children and had many other interests including bagpipes, scuba diving and pottery. He was employed by an Auckland dairy engineering company and was travelling to Napier on business.

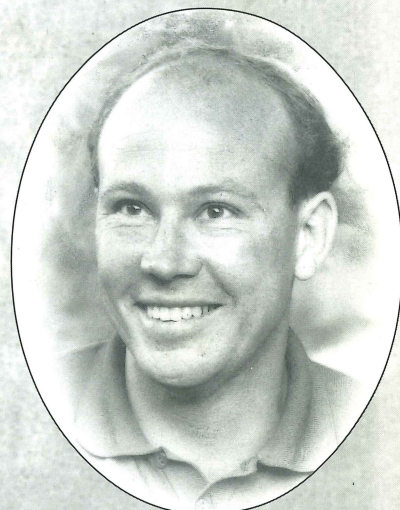
Next to John Hardley was 37-year-old **Len Goddard** of Dudley Road, Auckland. He was born in Pukekohe and with his family moved to Dargaville where he attended Dargaville High School and later went on to graduate from the University of Auckland with a commerce degree. He was married and had four young children. He was General Manager for General Foods in Auckland, a position he had taken up in 1960, having been secretary since 1954. On this trip he was travelling to Napier to visit Watties Foods in Hastings.

In the same row on the starboard side sat **Les Taylor** and Fred Pullum. They were travelling together on business for the refrigeration and air conditioning department of Jas. J. Niven and Co. Ltd. Les was aged 48 and was married with one daughter and lived in Lucerne Road, Auckland. He was born in England and with his wife emigrated to New Zealand soon after World War II. As departmental manager for Nivens he was going to Napier to oversee the refrigeration installation of the NZ Apple and Pear Marketing Board's new cool store in Hastings. With him was London born **Fred Pullum**, aged 43, of High Street, Birkenhead, Auckland. He had trained as a mechanical engineer and specialised in industrial refrigeration and air conditioning and was working for Nivens as a consulting engineer. Fred was married with two children.

Many of the passengers on Flight 441 would have been aware that the aircraft they were flying in was one of the recently refurbished DC-3 Skyliners. The aircraft type was a long-time favourite in New Zealand and the remodelled interiors had been well received. The windows had been enlarged and were 18" x 19" (appreciably bigger than the previous 14½" x 11" windows) and the decor was modern and light. The bulkheads were of light walnut panelling; the ceiling off-white suede; hat rack and side panels to bottom of windows, pale grey;



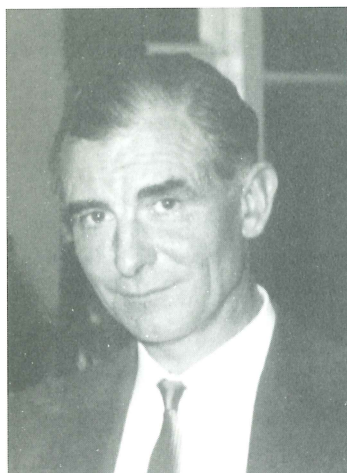
GRAHAM FLYGER
(via Linley Wall)



JOHN HARDLEY
(via Robin Hardley)



LEN GODDARD
(Weekly News)



LES TAYLOR
(Penelope Towers)

bottom of windows to floor, char grey; seats covered in turquoise fabric and off-white plastic. The carpet was unpatterned deep turquoise, and the curtains gold and white. There was also an improved ventilation system installed, together with increased interior lighting and a new public address system. The interior decor was based on National Airways' Fokker Friendship aircraft.

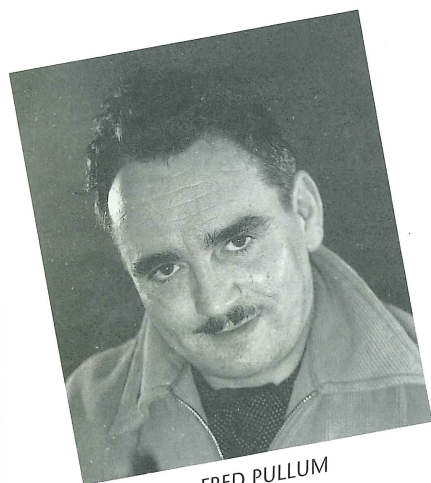
The last passenger on the port side of the aircraft was **Diane Taylor**, a 27-year-old wife and mother of two young children, who lived in West Tamaki Road, Auckland. She was born in Wellington and educated at Kelburn and Moera Primary Schools and Petone Technical College. In 1953 she married Dave Taylor, a TEAL airline steward, and she later ran her own hairdressing business. She was travelling to Tauranga intending to catch a James Aviation connecting flight to Rotorua to visit one of her sisters whose baby had died.

Across the aisle and also sitting alone was **Kenneth Woodger**, aged 40, visiting New Zealand on business. He had been born in Surrey, England, and in 1952 had emigrated to Australia. He lived in Loquat Valley Road, Bayview, Sydney and was married with two young daughters and had three sons from a previous marriage. Kenneth was General Manager of Lift Slab Australasia Ltd and had made several trips to New Zealand where his firm was responsible for lifting the concrete floor slabs of the new Tasman Hotel in New Plymouth, the Cable Price building in Wellington and the Albert Street car park in Auckland. He was to be involved with a new building job in Auckland but this was not ready so he decided to make his way to Gisborne to inspect another lift slab building.

Sitting behind Kenneth Woodger on the starboard side was 42-year-old **John Smith** of St Leonard's Road, Mt Eden, Auckland. He was born in Hertfordshire in England. During the war he was in the Royal Navy and was awarded the Distinguished Service Medal for his service on destroyers and submarines. He completed a printing apprenticeship after the war and came to New Zealand in 1948. He lived first in Dunedin and from 1951 was employed by Wilson and Horton in Auckland. John was married with three young children. In his capacity as Sales Manager of the Printing Department he was travelling to Gisborne and Napier on company business.

As the DC-3 left Thames behind, the flight was proceeding normally and the crew might even have been led to believe that the wind would decrease in strength as the trip progressed. This inference could have been made from the forecast which suggested the wind velocity south of Tauranga at 5000 ft was 060° 25 knots compared with 070° 40 knots from Whenuapai to Tauranga. There was nothing thus far to suggest that Flight 441 would be anything else but routine and certainly no warning whatsoever of the vastly stronger winds that lay ahead.

But, unknown to the crew, the wind was progressively increasing, possibly reaching a maximum of between 70 and 80 knots. There were virtually no breaks in the cloud now and, in driving rain, this meant the pilots were concentrating on their instruments. With the greater-than-forecast wind strength, the DC-3 had unknowingly drifted to starboard while the ground speed gradually reduced. There could have been more turbulence and, while many of the passengers were experienced travellers, Jill Wilson might have had



FRED PULLUM
(via Alice Kerr)



DIANE TAYLOR
(via Dave Taylor)



KENNETH WOODGER
(Weekly News)



JOHN SMITH
(Weekly News)

her work cut out attending to those who were feeling unwell. She handed out the boiled sweets in preparation for the descent.

At 8.57am the Skyliner was seen about three nautical miles abeam Paeroa and was briefly sighted or heard by numerous people from Kerepehi right through to Gordon. At 9.04am one of the pilots, probably Peter Kissel, reported to Tauranga ATC, "Tauranga, this is AYZ. I will be with you in four minutes. Cruising 5500 ft. Request present weather." Air Traffic Controller Murray Christophersen replied, "AYZ, this is Tauranga. ETA 0908. Cruising 5500. My present weather: surface wind 100 magnetic, 15 to 25 knots, visibility two to five nautical miles, intermittent light rain. 5/8 1200, 8/8 2000-3000 ft. Altimeter setting 1011. Clear to join Tauranga NDB at 5500." The intended route of descent was for Flight 441 to pass to the east of the Kaimai Range. If the radio compasses had been functioning satisfactorily at 9.04am they would have shown that Tauranga was well to port. But with the weather and the effect of the terrain and precipitation static they might not have been reliable. The pilots, being unaware of the shift of the aircraft to the west, considered that they were close to the Tauranga beacon and clear of the Kaimai Range. With no operational DME equipment at Tauranga the pilots were denied the opportunity of using their aircraft DME to verify their position in the poor conditions.

At about 9.06am one of the crew called and said, "Tauranga, this is AYZ. We are two minutes out. Request descent to 4100." Following approval by the Tauranga ATC the descent was begun and the crew commenced the usual let-down procedure. Soon a turn was made and the aircraft encountered a very strong down draught in the order of probably 2000 ft per minute. Enchmarch and Kissel applied additional power to arrest the descent and tried to gain more height but to no avail. Just as quickly as the DC-3 plunged downward in the dense cloud and driving rain, severe turbulence of the worst kind hit the aircraft and the pilots battled for control.

*"... Tauranga,
this is AYZ. I will be
with you in four
minutes ..."*

“The *wreck* has been sighted”

AT GORDON QUARRY, near the base of the Kaimai Range, Errol Board, a welder and fitter, heard the distinctive sound of DC-3 engines passing overhead in the atrocious weather. He had been working on truck maintenance and was now getting a cup of tea in the smoko room. With such poor weather, he was surprised to hear an aircraft. He walked outside and listened intently as the engine noise receded a little, followed by increased revs, a momentary silence and then a low ‘whoof’ sound. He listened for a short time before going back into the smoko room to his workmates and telling them he thought an aircraft had crashed. Errol then dashed through the rain to the workshop to ring Constable Deryck Motley at the Matamata Police Station.

Across from the quarry, at much the same time, Gordon schoolmaster, Tauri Morgan, was taking a class when he heard the aircraft. A short time later he heard a “dull sort of crashing noise - like a door slamming at a distance”. He went outside to listen but only the gale force wind and driving rain met him. When he returned to the classroom several children asked whether he had heard “a bumping noise”.

From this time everything moved quickly with Search and Rescue in Auckland despatching an RNZAF Bristol Freighter aircraft at 9.35am and, at about the same time, an aero club Cessna from Hamilton but they were soon both called out of the area because of the turbulence. Despite the appalling weather and visibility the first ground party to head into the bush in the general direction of the ‘whoof’ was Errol Board and his workmates from Gordon Quarry. They were familiar with the terrain and Errol had recently done some clearing of nearby Thompson’s Track by bulldozer. Constable Motley gave permission for them to head up the hill, wearing appropriate wet weather gear, but insisted they must be out by dark. Motley stayed at the quarry to organise things and liaise with Search and Rescue.

Errol Board, together with Laurie Stokes, Noel Locke, Reg Joyce and Tom Fitzell, set off after 10.00am by car along Old Te Aroha Road to Morgan Ryan’s



farm. They left the car and set off walking over the back of the farm and up Thompson's Track to its furthest point. From there they walked along another track toward the trig station and this took several hours in the driving rain, mist and wind. Laurie Stokes recently recalled, "We knew what we were looking for, but nobody said anything about it. No one would have admitted to being scared. It was pretty hard going."

Morgan Ryan, his worker Eddy Welch, and dog Kennedy, were out checking stock and were surprised to come across the searchers. Told about the air crash the farmers joined Errol and his group as they worked their way along the track to the trig station at the top. Conversation ceased as they battled on in the mud, interrupted by a cow which suddenly burst through the bush and across the track. Ryan said, "I've been looking for her all morning!" and this helped break the tension. Several of the group got to the trig but with the dense mist and scrub up to six feet high it was impossible to do much searching. After 3.00pm with nothing sighted and with no bush slashers to help their advance, the party decided to return. Ironically if the mist had lifted, even for

Volunteer searchers near the Gordon Quarry look up to the Kaimai Range and the likely crash position of DC-3 ZK-AYZ
(Garry Mills)





At Gordon Quarry, volunteers arrive on the morning of 4 July. The continual rain made for boggy conditions. In the background is the St John Ambulance mobile caravan from Hamilton.
(Garry Mills)

a few seconds, they would have seen the wreckage just a few hundred feet along the ridge opposite the one on which they were standing. It was nearly dark when the quarrymen returned and in the space of about eight hours their old workplace had become the headquarters of a large search operation. Stokes remembers, "We arrived back at the quarry exhausted, the longest day of my life, and I remember seeing all the lights and people, and thinking this place has turned into a small city!"

By this time reporters were clamouring for details as the media had been alerted. From about midday people started arriving at Gordon Quarry, with the Tauranga Search and Rescue personnel arriving first, led by Bronte Sinclair, and then many volunteer searchers. Army personnel equipped with blankets, medical and rescue supplies arrived shortly after at 1.00pm. At this stage mud in the quarry was ankle deep and with the gale and driving rain still in furious rage there was no chance of searching the hills visually. A party, including two doctors, St John Ambulance men and radio operators, had entered the bush at 2.00pm and two more search parties followed but they were forced to return due to failing light and the appalling weather.

Pioneering Helicopter Pilot at Work

MIKE ALEXANDER, one of New Zealand's pioneer helicopter pilots, played a crucial role in the search and recovery operation of the Kaimai crash. Born at Wanganui in April 1932, he obtained his commercial pilot's licence in 1953. He eventually purchased two Tiger Moths ZK-BNF and ZK-BNG and in 1956 started his own company, Aerial Applicators Ltd. In 1959 the first helicopter company in New Zealand, Helicopter Services Ltd, had some problems and they sold to Mike Alexander. He began with two Hillers, lots of boxes of bits, a Bedford utility and two old tankers. In October 1962 the company was revamped as Alexander Helicopters and in January 1963 the first Hiller UH-12E, ZK-HAN, was imported for the company. Alexander was a tireless advocate for the helicopter, continually persuading Government and local bodies about their usefulness for the New Zealand environment. Alexander Helicopters laid the first power cable to Waiheke Island, a marine beacon on Kawau Island and, with the advent of television, the lifting of transmission towers. In 1963, with no helicopters in the New Zealand armed forces or as dedicated search and rescue machines, the search for DC-3 ZK-AYZ gave Alexander Helicopters a significant opportunity to prove the worth of helicopters in this type of situation.

In 2003 Mike Alexander recalled:

IT WAS A LOUSY DAY with strong winds and rain. The sort of day one catches up on paper work and the hangar engineers could put some polish on their very well maintained machines. We heard on the radio that an NAC DC-3 had gone missing on a flight from Auckland to Tauranga.

Contacting Air Traffic Control we offered our services to search the area but were told quite bluntly to keep our nose out of the matter. After festering inside all day I decided in the evening that the officials could 'get lost' and we were going anyway. Since it was now dark and raining I decided to load the helicopter (ZK-HAN) onto a road trailer and drive all night from Wanganui to the Kaimai Range where the search headquarters had been set up. We had a very long night with a brief stop at Taupo for a cup of tea.

At daybreak my crew and I reached Putaruru so we stopped driving and I flew the helicopter to the Kaimai Range and found the field search team in a quarry at Gordon. It was obvious that the search team did not want us around and made it clear we were not welcome. At the same time the Air Force had a Bristol Freighter flying overhead above the cloud and rain doing its best to locate the DC-3.

Feeling a little defeated I approached a small group of farmers standing in the corner of the quarry. They too had obviously had the cold shoulder so I reckoned we would make a good team.

In these situations it is the locals who can give very useful and accurate information. So I struck up a conversation. "Where do you guys reckon the plane is?" I asked. "Up there," says one guy, pointing to the cloud covered range. "We heard a bang yesterday in that direction and one of us reckoned he saw a light during a break in the clouds last night. Looked like a torch."

So I went back to the search controller and asked him if I could take a look. Very reluctantly he agreed. They were not making any progress and nor were they going to make it easy for me. The top two thirds of the ranges were shrouded in cloud with strong winds and drizzle. The only way to search was to hover a few feet from the ground and creep along following the ridges and keeping visual contact with the ground. So in this manner my search began with a very clear picture from the farmers in the quarry.

Well, it didn't take all that long and suddenly, just below the tops, the horror of the crash showed itself. The aircraft had hit a rock face, slumped back into a tiny pocket below and burnt out. Really burnt out. I could not see any possibility of survivors. The locals were right about the location. I hovered slowly back down through the cloud and reported the finding so that the next work could begin. Crews had to be flown up to the crash site. At first I could not unload these strong guys right at the site but rather 150 metres away at a better place. After three trips our hardy men were able to clear a little vegetation right near the impact site and all loading and unloading was then carried out there. Everything was done at the hover and crews had to jump off and on. Long lines were also used. The guys at the crash site had a tough time. I will never forget and was totally moved by the ministers doing their last rites service.

It was time consuming so we called in another helicopter operator to give a hand - Jan Beijen chief pilot of Rudnick Helicopters, also from Wanganui, with Bell 47D1 ZK-HAJ. By this time we were all good friends with the search controller and his excellent team and had a great deal of respect for each other. Jan and I flew hard and the following day everything had been done that could be done. For both of us just another job, but being the first such aviation search/salvage in the public eye the press blew it up quite a bit. It did, however, highlight just how magic helicopters were and their abilities in this type of sad job. The hype was such that I consider this was the turning point for the armed forces to get some of these great machines for themselves.



Mike Alexander (centre) helps Paddy O'Brien, Chief Inspector of Accidents (left) with his seatbelt and at right Dr John Henderson of the RNZAF, readies for a flight to the crash site on 5 July. (Garry Mills)

Many of the searchers came well prepared for the arduous conditions.
(via Matamata Historical Society – John Charles McFadyen Collection)



Studying a map of the area are from left; Search leaders John Gummer and Peter Lamont with the field search controller at Gordon Quarry, Barry Spring-Rice.

(via Matamata Historical Society – John Charles McFadyen Collection)

Earlier in the afternoon Wing Commander O. J. 'Paddy' O'Brien, Chief Inspector of Accidents, Air Department, and his assistant, Squadron Leader Ted Harvie, left Wellington in a Civil Aviation aircraft to set up headquarters in Matamata. Dr John Henderson of the RNZAF Aviation Medicine Unit at Wigram joined them.

During the afternoon, Waikato and Tauranga hospital members set up a mobile operating theatre and the St John Ambulance mobile caravan was delivered from Hamilton. Special facilities were set up at Te Aroha Maternity Hospital and 12 blood donors at the Waikato Hospital gave a pint of blood each for a special reserve blood bank. At Waihi College the student radio station (ZLIAZO) was commandeered to handle the initial base communications for the search teams until the search headquarters was established with its own

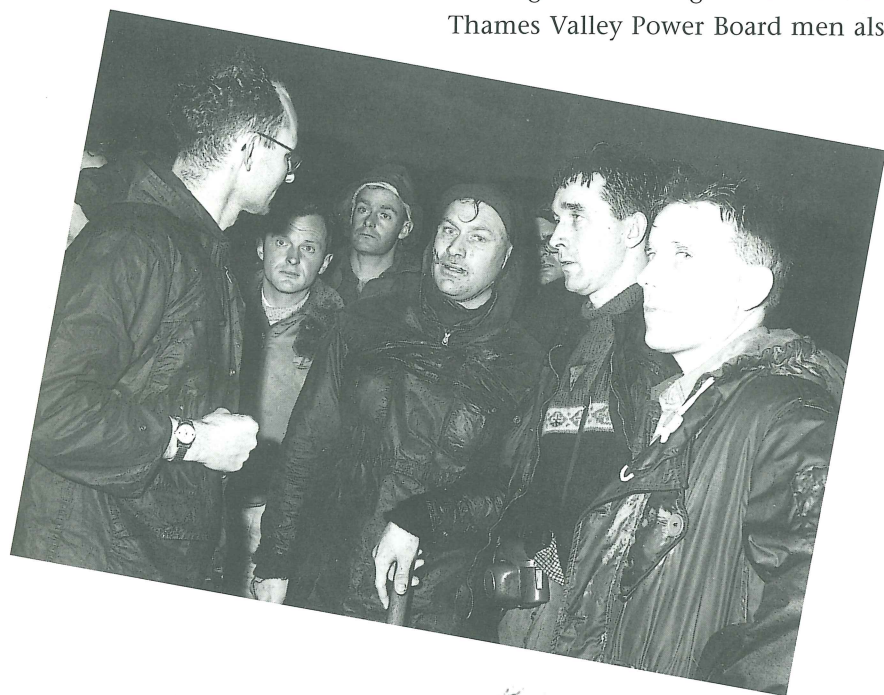


*A search party enters the bush near Gordon.
(via Matamata Historical Society – John Charles McFadyen Collection)*

*The Matamata and Te Aroha district communities responded to the tragedy with much practical assistance including food and drink for the searchers. Over 800 meals were served. Here a cup of soup is given to Constable Owen Armer of Hamilton.
(via Matamata Historical Society – John Charles McFadyen Collection)*



base radio equipment. At Gordon Quarry the army set up a Land Rover with stretchers ready to rush a mile to the bush edge. The Gordon School was closed and the sole teacher, Tauri Morgan, his wife June and her mother, Mrs E. Flintoff, visiting from Rotorua, made available the school facilities and with many other locals from the Gordon and Wardville areas helped dispense about 40 meals and organise overnight accommodation for the voluntary searchers arriving. Thames Valley Power Board men also put in extra power cables at the quarry



Barry Spring-Rice, field search controller (left), talking with three weary rescue party members. From left Ron Bennett, Peter Lamont and Dr John Henderson of the RNZAF. These three were among a group of six who made an attempt on 4 July to reach the crashed DC-3 on foot after being transported part of the way by helicopter.
(via Matamata Historical Society – John Charles McFadyen Collection)

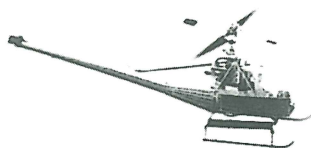
Gordon Quarry for several days was transformed by searchers. Here an Army stretcher vehicle arrives (foreground) and in the car in front Mr S. Baveystock, a section leader of the Tauranga Amateur Radio Emergency Corps, speaks by radio to another group of searchers.
(via Matamata Historical Society – John Charles McFadyen Collection)



for special lighting. Waiting around were clergymen, including Father Ewan Derrick of Matamata, doctors, nurses and police officials.

From around the upper North Island people from all walks of life were being mobilised. Richard Drake was Club Captain of the Waikato Tramping Club. He recently commented, "I had a phone call from Frank Thompson, search controller for the Federated Mountain Clubs SAR in the Waikato, and he was requesting a group of six fit and experienced trampers to help in the search for the aircraft. I immediately put my work aside at Europa Oil (NZ) Ltd at Frankton and made many phone calls, and all the people I phoned responded immediately and without question. They travelled to the search area later in the day and more trampers made themselves ready. Frank went to Gordon with the first party to carry out the field control, taking over from Bronte Sinclair and Constable Motley." Thompson despatched 20 men into the hills, among them a Catholic priest and a radioman.

John Barker from the Western Suburbs Radio Club was asked by the section leader of the Amateur Radio Emergency Corps to assist in the search. He recalls, "I went to the NAC depot at Auckland, along with tramping club members. We were then transported in army vehicles, stopping at Ngaruawahia to refuel and then on to the Gordon School where we slept the night - I ended up on the concrete in the bike shed!" Snow Browne of the Waihi Amateur Radio Club also made his way to the quarry to help set up communications and two days



Mike Alexander in his Hiller helicopter ZK-HAN makes a flight from near the search headquarters at Gordon Quarry to explore the mist covered slopes of the Kaimai Range.

(via Matamata Historical Society – John Charles McFadyen Collection)



SKYLINER PLANE MISSING IN RANGES

AUCKLAND, Today (PA). - Airways Corporation DC3 aircraft is believed to have crashed in the Kaimai Ranges.

National tragedy says P.M.

Wellington correspondent

"This is tragic news. It seems that our worst fears must be confirmed. This is a time of national shock and great sadness," the Prime Minister, Mr Holyoake, said yesterday after receiving the latest report on the air disaster in the Kaimai Ranges.

"On behalf of the Government and people of New Zealand I wish to express for us all our heartfelt sympathy and support for the many families and relatives in this time of grievous anxiety.

"I wish also at this stage to commend the great efforts of all engaged in the search for the aircraft under such shockingly adverse and arduous conditions."

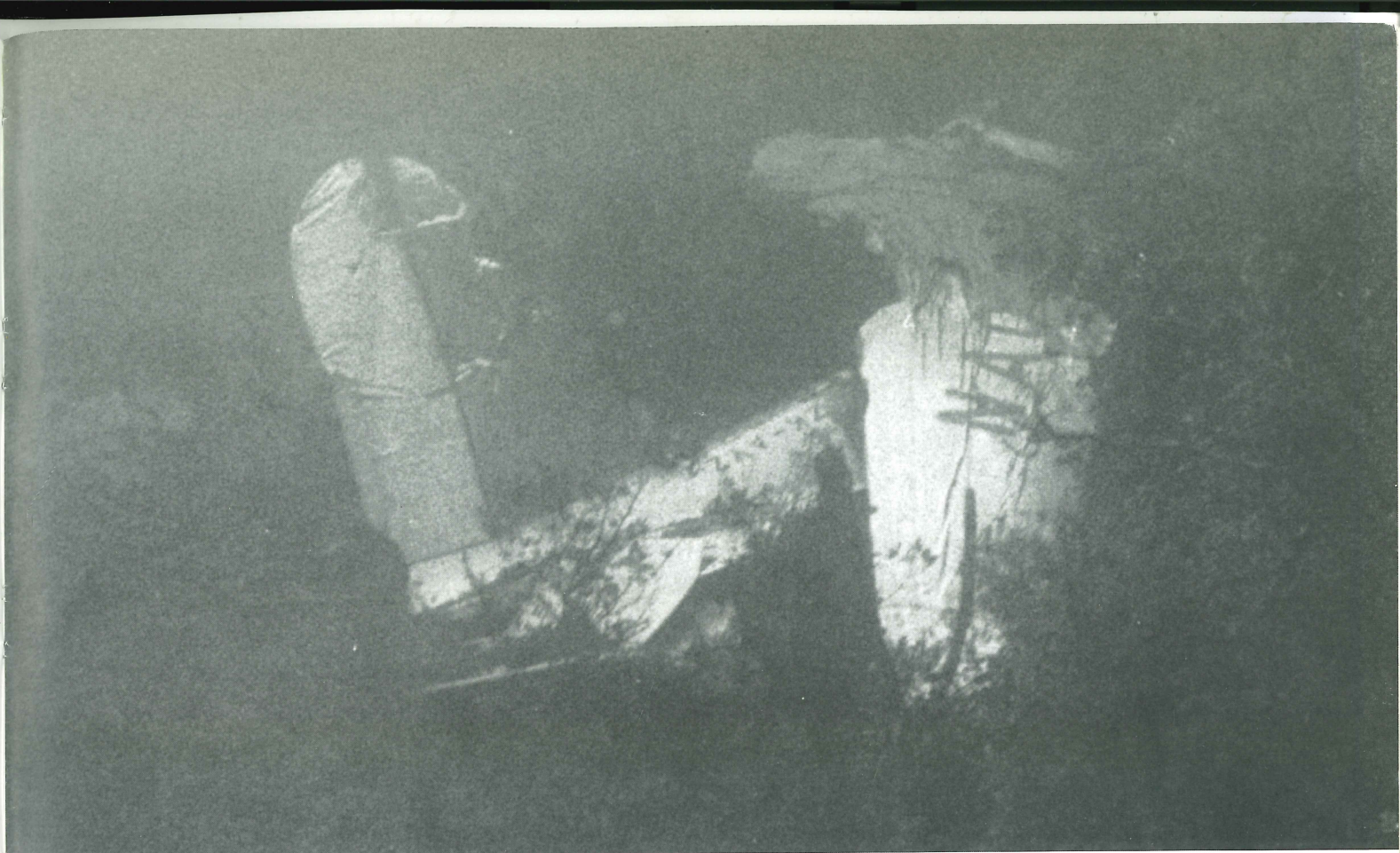
later was amongst those to get to the crash site with his portable radio gear.

David Gauld, at the University of Auckland, and a member of the university's tramping club was approached at midday by club president, Brian Davis, and told that he was to be one of the two in the initial contingent from the tramping club to leave Auckland by 2.00pm with full tramping gear and food for several days. Gauld recalls, "Along with Russell Blong I was whisked across the city to the NAC building on Victoria Street West, just making the 2.00pm deadline. Eventually we left in an Army van and arrived at Gordon around tea time. We were taken to the local school and sprawled ourselves out on the floor to get a good night's sleep. Around midnight a larger contingent of searchers also arrived in Army trucks from Auckland, including four others from my club, but they soon settled down on the hard floor."

Evening newspapers throughout New Zealand that night had banner headlines about the missing DC-3. The next morning the story dominated every newspaper in the country. One editor soberly commented, "At this stage there is room for hope - hope that the presumed crash will not prove to be the worst air disaster in New Zealand's history. Nevertheless, the possibility that it is - all 23 lives have been lost - must at this moment be faced."

Thursday 4 July dawned in a bleak fashion at Gordon Quarry. There were now about 100 people in the vicinity with many more arriving, including more searchers and relatives of those on the ill-fated DC-3. Sightseers were kept away by roadblocks set up around Gordon and three traffic officers were on hand to control the large volume of traffic. Many local residents helped to get cooked breakfasts ready for the searchers with some getting up at 5am to help prepare the food. In addition to Mrs J. Morgan and Mrs E. Flintoff from the school, the volunteers included Mrs E. McGregor, Mrs D. Brooks, Mrs S. Brooks, Mrs A. Johnson, Mrs V. McGuire, Mrs S. Brady, Mrs G. Bartleet, Mrs P. Greenslade and Mrs D. Giddy. Among those first up that morning were Barry Spring-Rice and Peter Lamont, both from the Alpine Sports Club and both with experience in Search and Rescue. Lamont was also a foundation member of the Ruapehu Ski Patrol. They had arrived at Gordon late the previous night and Spring-Rice soon took over from Frank Thompson as field search controller. Very soon nine ground parties were setting off consisting of about 130 men. David Gauld recalls, "Each search team consisted of a mixture of trampers, some local farmers and a policeman. My team set off up the ridge to the true right of the Mangapukatea Stream. We continued up that ridge aiming for Mt Ngatamahinerua. The weather was pretty miserable; rain and perhaps a southwesterly. The bush was fairly dense too. Hence progress was slow; we had full packs, expecting to spend the night out in these conditions. Every hour or so we would radio back to search headquarters to inform them how we were going and to receive further instructions."

Early in the morning Mike Alexander of Alexander Helicopters arrived and he eventually made a sortie at 8.30am in his three-seater Hiller with Reg Bennett as observer. Bennett told a reporter soon after, "We did a quick sweep along the hills but saw nothing. The rain closed in and we couldn't get into the valleys at all." Later an RNZAF Bristol Freighter was flying above the Kaimai Range hoping



for a break in the cloud cover to identify the crash site. At 11.15am a sharp-eyed ground searcher got a glimpse of a blackened patch of hillside high on the ridges leading to Mt Ngatamahinerua before swirling mists again obliterated the scene. A report of the sighting was quickly relayed to the Gordon search base and then on to the Bristol Freighter. At 11.58am the crew of Bristol Freighter NZ5912, flown by F/L Rex Ford, reported wreckage in a narrow steep ravine, close to the summit of Mt Ngatamahinerua. Rex recently recalled, "The weather had improved and the sun was reflecting on the wreckage making it look like a metallic cross." Mike Alexander, with search controller Barry Spring-Rice, confirmed this with a closer inspection of the wreckage at 12.09pm, hovering about 20 ft above the site. Upon returning to the quarry Spring-Rice quickly issued recall instructions to all the searching groups and for all other reinforcements to be cancelled.

From Wellington, the Prime Minister, Keith Holyoake, made an announcement saying, "This is tragic news. It seems that our worst fears must be confirmed. This is a time of national shock and great sadness. On behalf of the Government and people of New Zealand I wish to express for us all, our heartfelt sympathy and support for the many families and relatives in this time of grievous anxiety. I wish also at this stage to commend the great efforts of all engaged in the search for the aircraft under such shockingly adverse and arduous conditions." Later in the day, the Minister in Charge of Civil Aviation, Mr John McAlpine, announced his intention of directing that a public inquiry be held into the cause and circumstances of the crash.

A well-equipped rescue team was put together and airlifted to what was considered the nearest access point, but after many hours of slogging in atrocious

The first photograph taken of the wreckage of DC-3 ZK-AYZ, by Harry Payton, chief photographer of the Auckland Star, on Friday morning 5 July. Conditions were still difficult with thick mist and turbulent wind and helicopter pilot Mike Alexander, could not easily hover for the photograph.

(via Matamata Historical Society – John Charles McFadyen Collection)



Mike Alexander with Rev John Coveney, Anglican vicar of Matamata (at right), and Father Ewen Derrick, a Roman Catholic priest from Matamata, taking off to hover over the crash site for them to conduct a brief funeral service on the morning of 5 July. A few minutes earlier Jan Beijen had taken Rev. Roy Jamieson, Methodist minister from Te Aroha (standing in the middle of the group in the background), to the wreckage to sprinkle earth symbolically from the hovering helicopter and say prayers.

(via Mike Alexander)

Below: Jan Beijen's Bell 47 ZK-HAJ of Rudnick Helicopters setting off for another sortie up into the mist of the Kaimai Range. Standing by the Land Rover is Paddy O'Brien, Chief Inspector of Accidents.

(via Matamata Historical Society – John Charles McFadyen Collection)

conditions and no sight of the wreck, and with daylight running out, the group abandoned the approach for that day. Despite the deteriorating weather they were airlifted out by Alexander with the assistance of another helicopter that had arrived during the day. This was 32-year-old Jan Beijen with a two-seater Bell 47D1 from Rudnick Helicopters of Wanganui. Beijen, like Alexander, was an experienced pilot having joined the Dutch Air Force in 1950 to fly jet fighters before moving to helicopters in 1957. He came to New Zealand the following year to join Rudnick and had worked on a wide range of pioneering helicopter jobs. (Sadly he was killed in a venison helicopter recovery crash in South Westland in July 1969.)

A number of relatives of those on board Flight 441 gathered at the Gordon Quarry. One was Nelson Tolerton, whose father, Fred, and step-mother, Ruth, were on board. He was a production manager at NZ



One Searcher's Story

NOEL JOHNSON, aged 27, was a surveyor with the Matamata County Council. On the morning of 3 July he was surveying about 11 miles west of the Kaimai Range but with the weather deteriorating he packed up the theodolite and returned to the county office at Tirau. At lunchtime he heard of the aircraft's disappearance and as part of the Search and Rescue team he and his pregnant wife Ann left for Gordon at 1.30pm.

In 2003 he remembered:

WALKING INTO THE HILLS in the afternoon it was hard to look into the driving rain and wind. It was very cold and the cloud base was probably only 500 ft. Around 5.00pm, in heavy rain, we drove back to Tirau with the local radio station imploring residents in the Matamata area to leave their lights on overnight to guide any survivors who might be trying to walk out of the bush.

We returned around 7.30am on Thursday morning to a more organised scene. A group of local farmers was going up the nearby stream pattern in an effort to explore the western face of the ranges - a task that, due to the terrain, proved absolutely impossible. I joined a Search and Rescue group from the Waikato Tramping Club under the leadership of John King - a man very experienced in search conditions in bush areas. It had stopped raining but cloud was still half way down the Kaimais as we climbed Mount Ngatamahinerua, reaching the top around noon. We sat under the trig boiling soup over an alpine primus pondering our next move. Surrounded by swirling mist we heard the radio suddenly break silence - "The wreck has been sighted. As far as we can make out it's near the summit of Ngatamahinerua." Minutes later there was a 'chop, chop, chop' of a helicopter below us and, by the sound, not far distant - we estimated perhaps 300 metres. Taking a compass bearing on the noise of the chopper we set to work to cut a track through the stunted,

tangled, sub-alpine growth - growth that was so matted and thick that you couldn't see a yard ahead. But we were soon ordered to base and tramped out and down Thompson's Track.

On Friday around 140 people were on site. I remember that a local Matamata dry cleaning firm had taken wet dirty clothing to their premises and returned it clean, dry and warm. Local wives and members of the WDFF and CWI were there in force providing hot breakfasts and so on. Both Gordon and Wardville Schools had been taken over and converted for SAR use. We had an early pre-dawn briefing and Spring-Rice called out, "Johnson, Cobb, stay please." Constable Laurie Cobb, Peter Lamont and I were authorised to fly up by helicopter and drop on to the trig. My first ever chopper ride - exciting stuff! Cobb first, then me and Lamont some 30 seconds later, took off in separate choppers, climbed, hovered over the wreck and then across the valley to the trig. Cobb was already on

the ground and I could see his head and shoulders poking out of the stunted growth. Hover, toss out slasher and pack, climb out, hang on the skid and let go! Probably in only 10 minutes from the quarry I was on the ground compared with five hours the day before.

The only piece of flat was occupied by the trig so the slasher was very handy as Peter Lamont and I chopped the trig marker down and threw it over the adjacent cliff. Over the next 30 or so minutes the two choppers arrived and dropped off SAR personnel. A small group of us left in an attempt to get to the wreck which we knew was only about 400 metres away in a straight line. Half an hour later we crawled through the matted undergrowth to arrive back at the trig having crawled our way round in a circle! The only answer appeared to be another brief chopper trip and on to the wreck itself. Three, perhaps four had already gone and it was my turn. Pointless to strap in



Noel Johnson (centre) with other searchers dismounting from a tractor trailer on Thursday 4 July. From left Gordon Yates, John King (hand in air), Ashley Shaw (pack in hand) and at far right John Wilson. (The Bay of Plenty Times via Annette Kidd)

as seconds later, hovering some 500 ft above the valley, it was again out onto the skid and hang underneath as the chopper moved in to the rock face - I would suspect that the blade tips were within 5 ft of the rocks. The pilot's instruction was "Watch me and when I nod, let go!" The drop was probably only about 10 ft and luckily Dr John Henderson from Wigram grabbed me as I whistled past him. Probably about eight of us arrived by this method and the choppers returned to Gordon.

After a brief inspection of the wreck and its macabre contents we started work on a small outcrop about 30 ft above the wreck. The two choppers climbed up again through the mist, tossed out a crowbar or a spade or another piece of needed equipment and then fell away into the mist. Slowly we levelled a small pad large enough for a chopper to just touch but not land. Then the press photographer arrived and hovered close by as he took photos. Then 'chop, chop, chop' again - more bloody press? But it wasn't. A minister sat beside the pilot and 50 feet from us a simple church service was held, repeated soon afterward by two more ministers, sitting alongside their pilot. All of us stopped work and stood bare-

headed as we prayed together for those below us, not one man looking at another. It was one of the most moving things I have ever seen.

By this stage a few SAR personnel had arrived from the trig by foot. For their efforts they were allowed a very brief visit to the wreck before being ferried out by the choppers which could now land - almost - on our landing pad. The next few hours were unpleasant, although at the time we were merely a group of men doing a job. Probably left with around six people we set to work - from memory Peter Lamont and I were the only civilians. My job was generally holding the plastic bags open and looking steadfastly the other way whilst the police did their part. A chopper would arrive and leave again with a bag slung below. Another bag, another chopper. At one stage we located an entire body [later identified as John Hardley] lying face down in a pool of water probably 50 metres from the wreck. He was the only 'survivor' and John Henderson commented that even had he been in a major surgical hospital within five minutes of the crash he would not have survived. This somewhat dispels the myth that had the local farmers been allowed into the

bush on the Wednesday afternoon they would have saved lives - there were no lives to save!

Job over, plastic bags gone and it was time for the final act. A chopper would arrive, place the front of its skids on the little pad - the pilot all the time watching the adjacent cliff face in relation to his rotor tips (at one stage during the morning, one of the choppers had hit a tree with its rotor but continued flying throughout the day). Constable Laurie Cobb and I were the last two at the site. Having been told that with the worsening weather the choppers might have to stop flying I suspect we said very little and I probably smoked a cigarette as we sat waiting looking down at the wreck below. We each had our own thoughts.

A chopper returned and minutes later I was back on the ground at Gordon Quarry, leaving Laurie up there by himself on a rock at around 2700 ft in the Kaimai mist. It would have been deathly quiet as he sat there unsure as to whether the chopper, in worsening weather, was going to get up there for that one last time. Fortunately the chopper made one more flight and Laurie was back on the ground at Gordon at about 5pm.



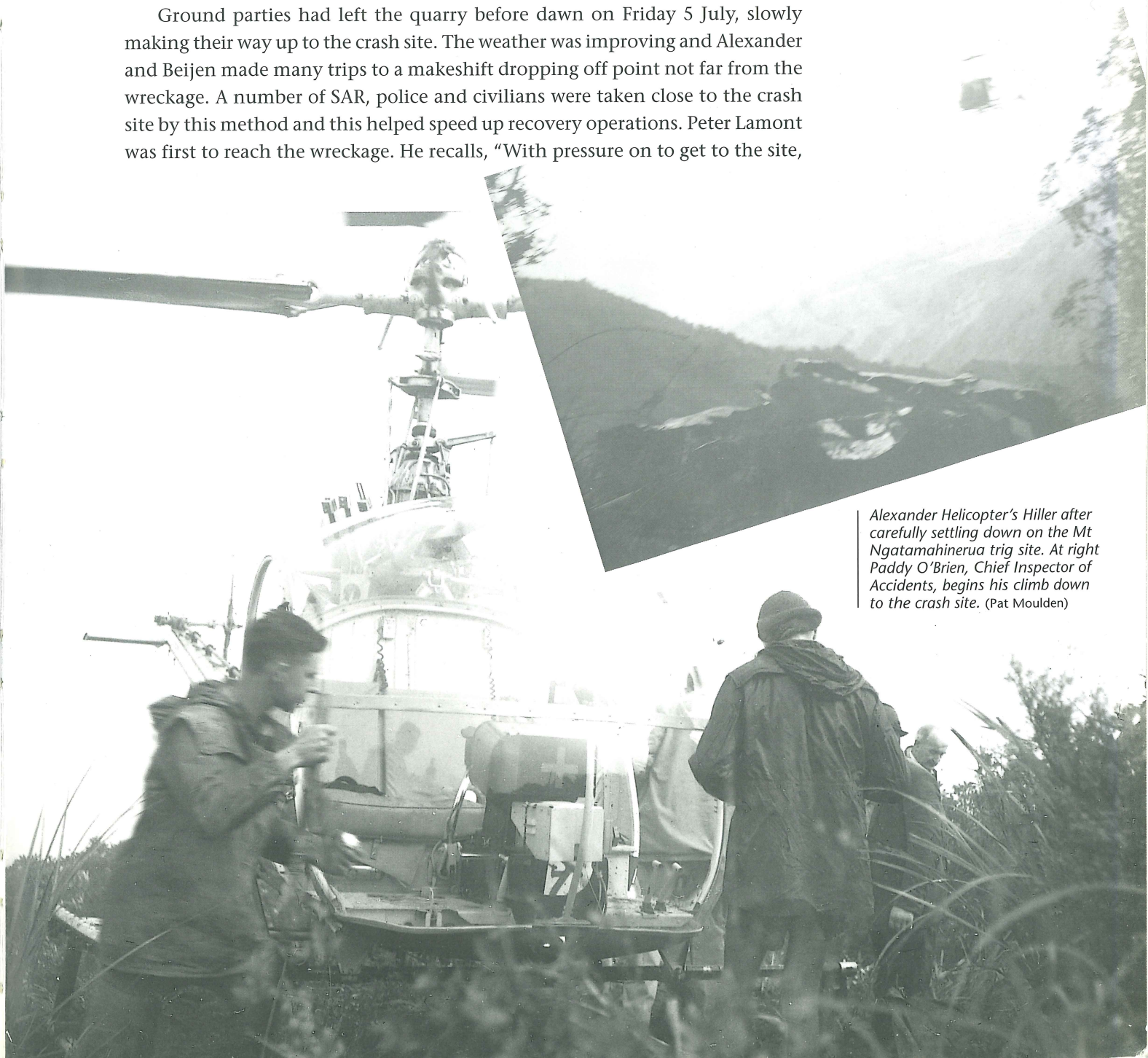
On Friday 5 July, ground searchers can be seen to the left and upper left of the wreckage.

(via Matamata Historical Society - John Charles McFadyen Collection)

Forest Products' Kinleith Mill at Tokoroa and arrived at the quarry on Thursday. He remembers, "I found the quarry foreman and he told me what he had recalled from the day before. It was a frustrating wait. The search parties had gone off one after the other and the group at the quarry was growing. Then there was some excitement. The helicopter had found something and returned to base and I managed to speak to the pilot. My concern had been that they were up there injured. He immediately assured me that there could be no survivors. Death would have been instantaneous as they had gone straight into a vertical rock face. Not a good report. The passengers would not even have seen what the pilots saw in their last seconds which caused them to slam on the throttle." Another was Graham Morris of Gisborne, whose brother Norman was on the DC-3. With three other men from Gisborne, all skilled climbers, he had travelled overnight by car to Gordon to join the first search group entering the bush at dawn.

Ground parties had left the quarry before dawn on Friday 5 July, slowly making their way up to the crash site. The weather was improving and Alexander and Beijen made many trips to a makeshift dropping off point not far from the wreckage. A number of SAR, police and civilians were taken close to the crash site by this method and this helped speed up recovery operations. Peter Lamont was first to reach the wreckage. He recalls, "With pressure on to get to the site,

The view through overcast conditions looking toward the flat Waikato farmlands from the crash site with Jan Beijen's helicopter coming in for a nearby landing.
(Pat Moulden)



Alexander Helicopter's Hiller after carefully settling down on the Mt Ngatamahinerua trig site. At right Paddy O'Brien, Chief Inspector of Accidents, begins his climb down to the crash site. (Pat Moulden)

The utter devastation at the crash site is evident here. One of the first searchers at the site is on the bank at centre top with the remains of the port wing prominent. This wing took the brunt of the initial impact. (Garry Mills)



Mike Alexander (kneeling at right) helping to tie up some hot tea and food to lower to the men at the crash site. Standing at front is Alexander's loader driver, Hans Fredericks. The two helicopters between them made more than 60 flights to assist in the search and recovery operation. (via Mike Alexander)

and a slight improvement in the weather, it was decided that a direct effort should be made. I volunteered. I wrapped myself around the groin with my oil skin parka to prevent possible injury and carried a slasher. Mike Alexander had several attempts to get close enough to the ground for a safe jump and each time he approached the steep, heavily bush-clad ravine his rotor blades whacked the trees with a thunder-like crack. It was very difficult from above to gauge accurately the height of the bush into which we were to jump, but Mike instructed me when to jump. I jumped, disappeared, and Mike hovered around to ascertain my condition! A quick reconnoitre established no sign of life and a more suitable landing site was selected slightly above the crash."

Before any recovery work could begin, Paddy O'Brien, Chief Inspector of Accidents had to visit the site. David Gauld, David Smyth and others helped prepare a rough track from the helicopter drop-off place to help him to get to the wreckage. After being ferried in at midday by Mike Alexander, O'Brien, and his assistant Ted Harvie, made a full site examination. O'Brien gave a short radio interview just an hour after returning to Gordon Quarry. He said, "Well, it has flown into the face of a steep rocky cliff under full power and I should say at not less than usual cruising speed which would be in the region of 150 knots. It hit the face, severe compression of the structure and wings took place. The fuel tanks burst and the whole wreckage then slid back down the cliff face for perhaps a distance of 20-30 feet. The fuel that had been thrown out immediately ignited and there was an extremely heavy concentrated fire in this comparatively narrow cul-de-sac which virtually destroyed the front part of the aircraft."

That same morning John Forster of the New Zealand Broadcasting Corporation made a trip in one of the helicopters and recorded his impressions which were broadcast across the nation. With the sound of the helicopter in



The first radio operator to get to the crash site stands on the side of the rear fuselage propped up against the port tailplane. At bottom left is the broken tail wheel. (Garry Mills)



Helicopter pilot Jan Beijen holding the damaged rotor blade after hitting trees at the crash site. (Garry Mills)

Above: Constables Paul Sheriff (left) and Garry Mills involved in the recovery of bodies from the crash site. (Garry Mills)

the background he describes the scene, "We are now flying into the valley ... at the end of which the wreckage is sighted. From the quarry we fly about north-east across a few fields and into a fairly wide valley ... as we go further up the valley it gets steeper and more rugged ... and most of it is very very densely covered with bush. There is however the odd clear patch ... looks rather like there has been a fire here at one time ... we are quite a distance in now but we still have at least two more ridges to cross before we get to the final sheer bluff into which the plane crashed ... we can see the tailplane of the crashed liner ... the whole plane is nosed into a very small ravine only a matter of 100 ft from the top of the ridge and this ridge is the highest ridge in this part of the Kaimais ... and it looks from here very much ... as though he almost made it. There's very very little indeed left of the plane ... I can see the work party now ... hacking around ... such a small heap of metal ... such a small heap of metal. One wing folded over the rear part of the fuselage and the tailplane still visible ... nothing of the front part of the plane is left at all, it's just completely burnt out and I would say that the area covered by the remains of the wreckage is no bigger than the back of a flat bed truck. It's extremely steep country and it isn't any wonder it took a very very long time for them to reach here." (Sound Archives Nga Taonga Korero T334.)

A Police body recovery team was assigned the task of working at the crash

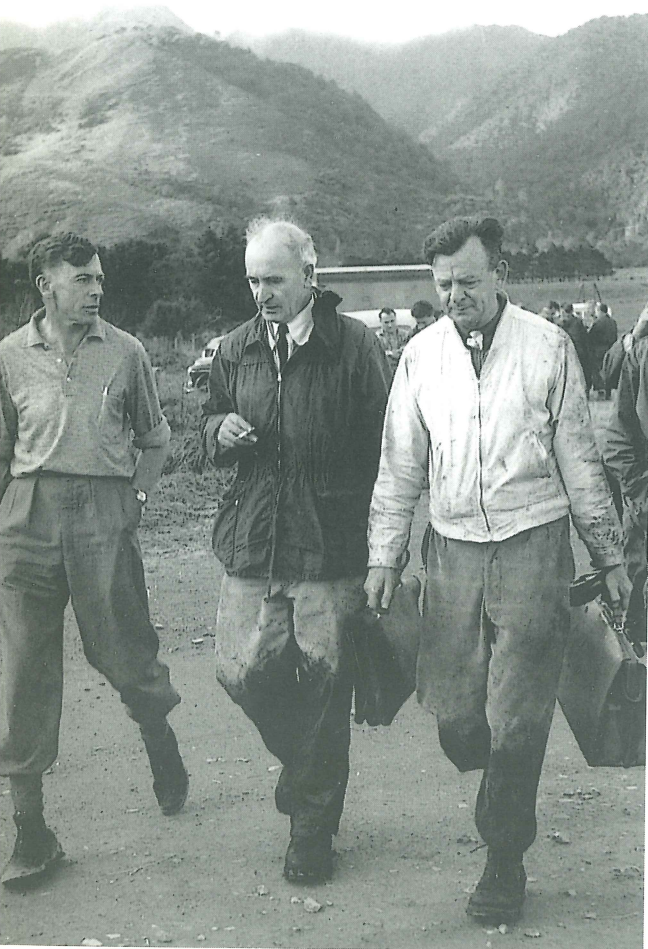
site. The team comprised Constables Laurie Cobb, Garry Mills, Pat Moulden and Paul Sheriff. Sheriff recently recalled, "At about 11.00am on the Friday our team, headed by Cobb, assembled at the site after being dropped by helicopter. The crash site itself seemed not much bigger than a decent sized living room, completely burnt out with a sheer rock face extending into the mist-covered heavens above. Body parts were evident over the area and it presented a gruesome sight with the soul-less remains of the burnt out aircraft completing a truly awful scene. I recall, before recovery commenced, helicopters arriving above us with occupants I later learnt were ministers of religion who administered last rites to the victims. It was a moving occasion. I also recall thinking to myself, 'Hey, they never told me it would be this bad'. My training certainly did not equip me for this awful place. Plastic bags and jute packs began to arrive by helicopter and the grim task commenced." Terry Farrelly, a constable at Te Aroha at the time, adds, "The Te Aroha Police Station was used as a mortuary and my role was to receive the bodies as they arrived down from the crash site, label them and prepare them for transfer to the Waikato Hospital mortuary. I later made several trips to the crash site to help recover further human remains, mail found scattered around and to assist the Army to cover the wreckage to stop sightseers from interfering."

By Friday afternoon the search operation had ended and Police and Civil Aviation had taken over. Almost 250 searchers had been involved, the overwhelming majority being volunteers, including over 40 locals. The weary volunteers returned home on the Friday evening including Barry Spring-Rice and other key personnel, John Gummer, Ron Bennett and Peter Lamont. Rod Draffin went home the same evening having done three continuous days at Auckland SAR Co-ordination Centre which was housed in the NAC building in Victoria Street. Lamont summed up the opinion of many saying, "Of particular significance to me was the response of the locals of the area and the services of the area. Whatever was requested at the crash site, chainsaws, slashers, crowbars, ropes, food and drink of all descriptions, it just appeared slung under a helicopter in no time at all. The organisation and supply lines at Gordon Quarry were marvellous."

The effective role of the helicopters in the search and recovery operation were also praised by all officials, including officers from Civil Aviation, the Police and the Search and Rescue Organisation. This was publicly stated by Barry Spring-Rice and Paddy O'Brien in the final stages of the recovery work as the two helicopters completed more than 60 flights, often in very difficult conditions. At times the helicopters were only on the ground a matter of seconds as passengers jumped out, new equipment was hooked on the trigger release mechanism, and they spun away back up the hill. None who witnessed this important demonstration of the helpfulness of helicopters was more impressed than O'Brien. He commented, "Perhaps this operation in extremely rugged country would not have been impossible without the helicopters, as the search and rescue teams have done a magnificent job. But the helicopters made the job easier and faster. The recovery might well have been nearly impossible without them in such inaccessible country."

*“... the whole
plane is nosed into
a very small ravine
only a matter of
100 ft from the top
of the ridge ...”*

“In the interests of *public* *safety*”



Back at Gordon Quarry after the arduous official inspection of the crash site, Paddy O'Brien (Chief Inspector of Air Accidents) confers with Ted Harvie, his assistant (at right) and E. Ball from the Civil Aviation Administration. (via Nancy Morrison)

A COURT OF INQUIRY into the circumstances of the crash of DC-3 ZK-AYZ opened in Hamilton on 30 September 1963, later resumed at Wellington and concluded there on 15 October. The inquiry was conducted by the Judge of the Court of Arbitration, Sir Arthur Tyndall, and the other members were Squadron Leader Dave Thomas, the officer commanding No. 42 Squadron RNZAF, and Captain Fred Allen, a retired NAC captain with considerable DC-3 experience. The appointed secretary was Mr Nigel Haggitt, representing the Air Department and various counsel represented interested parties. They were; H.R.C. 'Dick' Wild, QC, and Paul Neazor for the Minister in Charge of Civil Aviation; Denis Blundell and Simon Lockhart for NAC; E.F. 'Bage' Page for the next of kin of nine passengers who were killed in the accident; and Alister Macalister for the personal interests of the Captain and First Officer of the aircraft and for the Airline Pilots' Association.

The purpose of the Court of Inquiry was to establish the time and place of the accident, the causes of the accident and the circumstances in which it arose and, "Any facts which, in the interests of public safety, should be known to the authorities charged with the administration of civil aviation in order that appropriate measures may be taken for the safety of persons engaged in activities relating to aviation."

Sixty witnesses were called, including 29 local residents from Mangaiti, Kerepehi, Te Aroha, Manawaru,



Shaftesbury, Wardville and Gordon who reported briefly seeing or hearing the DC-3 pass over. The court covered all key aspects of the disaster in detail, including the weather. The situation on 3 July was of a north-easterly type. There was an anticyclone east of New Zealand and an extensive low-pressure system north of New Zealand and over the north Tasman Sea, so that the airflow over the North Island was from the north-east. Ironically ZK-AYZ was not the only aircraft accident on 3 July 1963. In the Tasman Sea a gale hit Lord Howe Island and Ansett Flying Boat Services' Sandringham VH-BRE (formerly TEAL's ZK-AMD *Australia*) broke its moorings and was badly damaged in the gale - it was subsequently stripped of all salvageable equipment and then sunk outside the island reef.

It was reported that on 3 July between 8.00am and 10.00am rain had fallen over most of the Auckland - Tauranga route taken by DC-3 ZK-AYZ. It was continuous and moderate to heavy in and near the ranges, but intermittent and mainly light near Auckland and Tauranga. Cloud was overcast over the whole route with a base of about 500 to 1000 ft and visibility on the ground was one to two miles. It was determined that the upper winds at 5000 ft for the

The ill-fated DC-3 Skyliner ZK-AYZ. The Court of Inquiry which opened at Hamilton on 30 September 1963 sought to determine the causes of the accident and to make known any facts in the interests of public safety. (Mannering & Associates)

first 30 to 35 miles of the route from Whenuapai to Tauranga would have been 070° 30-35 knots. However, the wind at 5000 ft over the latter half of the flight was considered to have increased to about 75 knots or more. In other words, the wind strength was considerably more than forecast.

Strong air flows over mountains, known as 'lee waves', are well known to pilots as phenomena to be avoided because of the ferocity of turbulence and strong up draughts and down draughts. This issue was considered carefully by the court and a considerable amount of relevant literature was presented. One of the expert witnesses was Ralph Court, a glider pilot and, at the time of the crash, President of the New Zealand Gliding Association. He had considerable gliding experience from Waharoa (Matamata) and throughout New Zealand. He helped explain the type of lee waves produced by the Kaimai Range, because of their unique shape and position across the prevailing wind direction.

Ralph Court described the air waves and wind conditions in the lee of the Kaimai Range and said, that while winds can be very strong, the air can remain smooth but the rate of descent can still be quite dramatic. He stated, "This flight took place under fairly moderate conditions and the rate of climb was not spectacular but even on that day the compensating down draught would have been beyond the climbing ability of a DC-3." The Court of Inquiry concluded, "The conditions on 3 July ... suggests a maximum down draught of the order of 2000 ft per minute, about 1000 to 2000 ft above the crest of the [Kaimai Range] ridge and some distance, possibly about a mile, down stream from it. The zone in which a down draught of this order of magnitude would occur appears to be quite limited in extent, and the magnitude of the down

Helicopters played a key role in the search and recovery operations; the first time helicopters had been used in such a major disaster situation. Here Jan Beijen heads up toward the crash site in his Bell helicopter.

(via Matamata Historical Society – John Charles McFadyen Collection)



draught would drop off quite rapidly away from this zone. Evidence of local residents lends support to the existence of these conditions in the vicinity of the crash on the morning of 3 July."

Another key witness who gave some idea of the conditions encountered by the pilots of ZK-AYZ was Captain Bill Pattie of SPANZ. On the morning of 3 July, flying DC-3 Viewmaster ZK-BYE on Flight 396, with Laurie Barclay as co-pilot, he had diverted to Tauranga from Hamilton. While approaching the Kaimai Range, in forecast winds of 40 knots, Pattie described what happened, "We encountered a severe down draught which took us from 5000 ft to 4000 ft in a matter of seconds ... I have never experienced anything as severe before."

Laurie Barclay recalled in 2003: "Our forecast wind was about 40 knots, directly on the nose. As a result of a quick approximate wind assessment on the climb out of Hamilton we were aware that the actual wind was in fact on the nose, with strength in excess of that forecast. We were at 5000 ft in cloud, in smooth air, with the autopilot engaged and on track to Tauranga, when the hostess asked if we would like a coffee, to which we said 'yes'.

"As we sipped our coffee, the first indications of lee wave activity occurred. We started to descend. Bill did the usual thing, tweaked the autopilot elevator servo to up, thus raising the nose, and applied climb power. Altitude was maintained. Subsequently we proceeded into the up draught sector of the wave, the power was reduced to cruise and we continued towards Tauranga. A few minutes later the same sequence of events occurred, with the magnitude of the down draught considerably increased, to the extent that a great deal more than climb power was required to arrest the descent. Finally, a little later the sequence was repeated with a dramatic increase in the down draught magnitude, close to take-off power being required to arrest the descent rate.



The port propeller of ZK-AYZ lying against the base of the rock face. One blade is sheared off and the detached portion is nearby. The air accident investigators reported the blade angles appeared to be approximately within the range of cruising position. (Jim Sullivan)



*The starboard engine of ZK-AYZ,
minus propeller, having rolled
down from the crash site.*
(Jim Sullivan)

"This final encounter was short lived, just short of the main Kaimai ridge, and was totally in smooth air, in spite of the wind strength in the vicinity of the ridge being close to 75 knots. The remainder of the flight was routine. I do recall Bill Pattie recommending to the controller at Tauranga, that any traffic in the Kaimai region not plan at less than 7000 ft until the wind abated. We, of course, were unaware that AYZ was overdue until advised by an NAC traffic clerk inside the terminal building at Tauranga."

ZK-BYE landed at Tauranga at 10.26am and after Pattie had informed Murray Christophersen in the control tower of their experience, Christophersen immediately closed Tauranga Airport and issued a special weather report and passed the information about the down draughts to the Hamilton and Auckland control centres.

The Court of Inquiry reported on the site examination which established that ZK-AYZ had struck a steep bush-clad rock face at the head of a valley in the Kaimai Range at an approximate altitude of 2460 ft and at a point distant about 660 yards on a bearing of 13° from the summit of Mt Ngatamahinerua (2787 ft). The wreckage was contained in a small cleft about 30 ft wide at its entrance and extending inward for a distance of 50 ft.

Paddy O'Brien, Chief Inspector of Accidents described the scene, "The entry of the aircraft into this narrow opening had resulted in both mainplanes being forced simultaneously rearward as the fuselage moved forward until it was brought to rest by impact with the vertical rock face at the innermost extremity of the cleft. The entire wreckage, with the exception of the starboard engine, was resting within the cleft. A clearly defined swathe in the undergrowth indicated that the missing engine had rolled away from the wreckage after impact. The aircraft had caught fire on impact and it was apparent that the fuel tanks had ruptured and that fuel had been thrown onto the surrounding rock face. A source of ignition could have been provided by the hot engines or by frictional sparks. An intense fire resulted which was concentrated mainly in the cabin area. The point of nose impact was clearly indicated by the nose cone which remained compressed on the rock face. The magnetic compass was resting beneath the nose cone. The port engine had been torn from its mounting and was resting in front of the fuselage in close proximity to the main seat of fire. The damage to the undersurface of the rear end of the fuselage indicates that the nose of the aircraft was up at least 7° at initial impact."

O'Brien went on to describe the speed and force, "It is known that the wind speed in the lee of the slope was between 70 and 80 knots with a head wind. If the aircraft had been flying at cruising speed of 150 knots impact speed would have been approximately 75 knots. In regard to force of impact, it is estimated that the DC-3 was brought to rest in a distance of about 12 ft. At a speed of 75 knots this would represent a mean impact force of 20G. To summarise, it is concluded that at impact the aircraft was sinking bodily at a high rate of descent. It was approximately laterally level with the nose slightly up. The undercarriage was retracted, the flaps up and the elevator trim tabs neutral. Both engines were delivering power."

To assist with the reconstruction of the flight path, Flight Lieutenant Ron MacFarlane, Senior Operations Officer, RNZAF Base Ohakea, and a qualified navigator with DC-3 experience, advised the court. His calculations indicated that wind velocities progressively changed both in strength and direction from 50/42 knots in the early stages, to 75/78 knots in the area of the crash. The meteorological forecast for the Auckland/Tauranga zone at 5000 ft was 68/40 knots. MacFarlane also examined in detail the changed ETA and deduced that it was most likely due to either higher ground speeds having been calculated between 8.45am and 9am or the aircraft's position being erroneously pin-pointed as being approximately on track but some seven to eight nautical miles closer to destination than its actual position. The court concluded, "From the Firth of Thames the wind, though retaining roughly the same direction, became progressively stronger reaching a maximum of between 70 and 80 knots, and the aircraft drifted starboard, while the ground speed became progressively less. If the radio compass was functioning satisfactorily at 9.04am it would show Tauranga well to port. The crew, being unaware of the displacement of the aircraft to the west, would be led to believe that they were close to the Tauranga beacon. At 9.06am a member of the crew requested descent clearance to 4100 ft, estimating that they were "two minutes out." It is believed that the crew

“A clearly defined swathe in the undergrowth indicated that the missing engine had rolled away from the wreckage after impact.”



Grieving families held funeral services for the victims of Flight 441 all over New Zealand. On 2 April 1964 a plaque was also unveiled at the opening of the NZ Apple and Pear Marketing Board's new J.H.Parker Cool Store in Williams Street, Hastings, in memory of Fred Pullum and Les Taylor. Fred was largely responsible for the refrigeration design in the new building and Les assisted with its installation. Both men were flying to Hastings for work at the cool store. From left, Alice Pullum and Louise Taylor with J.H.Parker at the time of the unveiling of the plaque which names the men and the Kaimai accident. Other passengers from Flight 441 were remembered in different ways including a special trophy at the Papatoetoe Horticultural Society in memory of Len Cartmer (a past president) and the 'Jill Wilson Memorial Prize for Biology', in memory of Hostess Jill Wilson, at Dunedin's Columba College.

(via Alice Kerr)

thought the aircraft was within the Tauranga control zone when this request was made as it was given confidently with no suggestion of anxiety or apprehension. A clearance to descend was given by Tauranga and acknowledged by ZK-AYZ."

The Court went on to say, "Evidence of the weather in the area, combined with the testimony of experienced pilots, leads the Court to believe that for the greater portion of the last 15 minutes of the flight the radio compasses were affected by terrain and precipitation static, and were not giving adequate tracking guidance. If, as is believed, the radio compasses started to settle down at around 9.04 hours the indication to the crew would have been that the aircraft was approaching slightly to starboard of the beacon and in a good position to turn on to the bearing of the outbound leg of the let-down procedure which is 056°. At 9.06am or shortly afterwards, descent was commenced. Approaching 9.08am it is thought that the aircraft initiated a descending turn on to 056° so as to track over the beacon and commence the let-down procedure. Just after the turn was commenced ZK-AYZ encountered a severe down draught which caused rapid and unavoidable descent terminating in the crash. It is believed that the impact with the ground occurred shortly after 9.09am. It is probable that the aircraft was subjected to severe turbulence immediately before the crash. The loss of altitude after 9.08am is consistent with a down draught of the order of 2000 ft per minute."

MacFarlane also commented, "During the remaining forty seconds to 9.09am, the pilot became engaged in at least four vital actions; 1) Attempting,

without success, to arrest the fast rate of descent by applying progressively more power; 2) Completing a descending instrument turn by reference to his flight instruments as well as a swinging radio compass needle; 3) Maintaining a close watch on air speed; 4) Endeavouring to maintain control in severe turbulence."

The Court of Inquiry described the 'Cause of the Accident' as follows:

"In the opinion of the Court the main cause of the accident was a strong downward current in the lee of the Kaimai Range close to the Gordon Quarry. This downward current carried the aircraft below the level of the crests of the range, where, under the conditions prevailing at the time, the aircraft encountered an area of extreme turbulence in which it was impossible for the pilot to regain effective control and recover height. Contributing causes of the accident were:

- (a) The Captain of the aircraft was unaware of his true position and initiated a premature descent. However, it must be appreciated that he decided to descend only to the level officially designated as the minimum safe altitude in the area of his descent.
- (b) The decision of the Civil Aviation authorities to classify the Kaimai Range as non-mountainous terrain for the purpose of determining the safe altitude for the route.
- (c) The misleading forecast of the upper winds between Whenuapai and Tauranga."

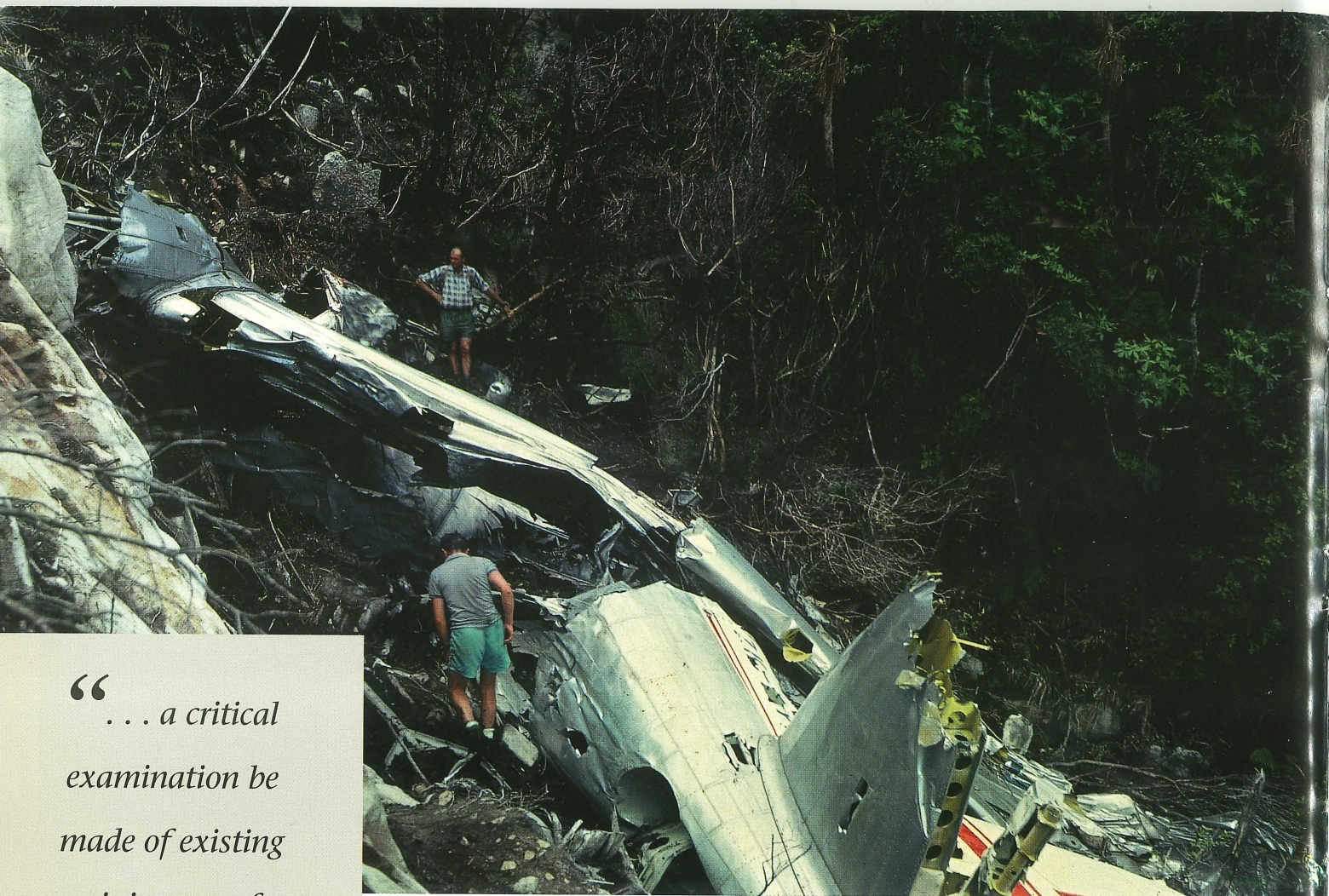
Another factor the Court of Inquiry drew attention to was the distance measuring equipment (DME). It was noted that while DC-3 ZK-AYZ was equipped with such facility, it could only function with the complementary ground equipment which Tauranga did not possess at the time of the accident. The range at which it could operate varied considerably and was dependent on a number of factors, including the efficiency of the aircraft installation. Maintenance records of ZK-AYZ showed a disturbing number of unserviceability reports of the DME. Between 1 April 1963 and 2 July 1963, of 96 flights flown by ZK-AYZ, crew on 24 of those flights had made defect reports on the DME. The Court noted, "It is possible, therefore, that on the day of the accident the DME in ZK-AYZ was not operating satisfactorily." But the Court went further saying, "It is likely that the accident would not have occurred had DME been installed at Tauranga and had the aircraft equipment been reliable."

The Court of Inquiry was told that DME equipment had been programmed for Tauranga in 1961 but first priority had been given to providing it for the turbine aircraft on the main routes and Tauranga's installation was envisaged later, at the same time as the provision of the new runway. It was reported to the Court that the DME had been installed at Tauranga after the crash and was operational from 27 July 1963.

The principal value of the Court of Inquiry was its recommendations to the Minister of Civil Aviation. They were;

- "1) That the installation of DME at aerodromes used by air transport operators be accorded priority and that reliable airborne DME equipment be provided

*"... the main
cause of the accident
was a strong
downward current in
the lee of the Kaimai
Range close to the
Gordon Quarry."*



“... a critical examination be made of existing minimum safe altitudes for air routes in New Zealand...”

- on passenger aircraft operating on scheduled flights.
- 2) That a critical examination be made of existing minimum safe altitudes for air routes in New Zealand, and that such an examination be made in conjunction with meteorological experts and those who have made a specialised study of vertical air currents such as the gliding fraternity.
 - 3) For flights by DC-3 aircraft it is recommended that where the forecast wind velocity is 30 knots or greater at planned cruising level the minimum safe altitude for any route be increased by 1000 ft. If the forecast wind velocity is 55 knots or greater it is recommended that the flight be cancelled.
 - 4) It is considered advisable to initiate a climb-out procedure for “Instrument Flight Rules” departures from Tauranga so that aircraft set heading at the Tauranga beacon at not less than 3000 ft.
 - 5) When DME equipment is not available or is suspect for any reason it is recommended that aircraft under “Instrument Flight Rules” arriving at Tauranga remain at the en route cruising altitude until overhead the beacon. Other routes which involve high terrain and lack of positive fixing should also be examined with this precaution in mind.
 - 6) The Court recommends that ballpoint pens be used by Air Traffic Control Officers and that no superimposed alterations to figures be permitted.
 - 7) It is strongly recommended by the Court that a forecaster be made available at Whenuapai Airport to brief and de-brief crews.

- 8) A forecast would be of more benefit if it was related to a route rather than a zone. It is considered that where possible and practicable specific winds be furnished rather than an average for the route and that the forecaster be encouraged to comment on any suspected unusual weather phenomena along the route.
- 9) Much of the topography of New Zealand creates difficulties in locating crashed aircraft, and most air and ground searches involve considerable expense and no little danger to those participating. It is suggested that an investigation be carried out into the feasibility and cost of fitting a crash-proof radio beacon to aircraft which would operate on impact and be available to guide searching aircraft to the crash position.
- 10) The desirability of installing some form of flight recorder in passenger aircraft was strongly advocated during the hearing. The Court is not disposed to recommend the fitting of flight recorders to DC-3 aircraft because we doubt if the expense is justified. We think, however, that in the case of turbo-prop and jet aircraft the possibility of installing such equipment should be promptly and carefully investigated particularly in the light of recent practice and compulsory requirements in certain other countries."

The cause of the tragic crash of DC-3 ZK-AYZ was, as is so often the case in aircraft accidents, a combination of factors; the strength of natural forces, inadequate weather forecasting, inferior navigational equipment, certain Civil Aviation Administration shortcomings and the exposure of some human fallibilities. The Court of Inquiry recommendations were constructive and wide-ranging and were endorsed by most in the aviation industry and by informed members of the public. An Auckland editorial of 20 December 1963 articulated the public's mood, "The findings of the Court, both specifically and in their general context, should prompt a thorough stocktaking of air control procedures."

Over subsequent months, at meetings convened by CAA, the relevant organisations met to consider the Court's recommendations. Detectable in the minutes of these meetings is a certain "ducking for cover" attitude by officials of some organisations. Fourteen months later, on 15 February 1965, the chairman of the committee set up by the Minister of Civil Aviation to examine and report on the recommendations, commented to the media that five of the 10 recommendations had been fully or partly implemented. This was unsatisfactory for the editor of the *Auckland Star* who wrote on 30 March, "Modern aviation is an industry of speed and progress. It does not allow for 14 month time lags while safety lessons hammered home at heavy cost are ignored or approached with anything less than urgency."

Another legacy of the crash was litigation. In August 1964, 15 writs totalling £302,500 were lodged in the Supreme Court, Auckland, on behalf of 15 dependants of some of those killed in the Kaimai crash. Damages were claimed against the Attorney-General, sued in respect of the Air Department, which at the time of the crash included the Civil Aviation Administration and the Meteorological Service, and against NAC.

In January 2003 the crash site is covered in bush but the DC-3's port wing still prominently displays its registration letters.
(Gary Johnstone)



On 7 July 1965 Mr Justice Hardie Boys held that NAC did not have an air service licence for the Auckland - Tauranga route. Accordingly he said that NAC had lost the protection of an air services regulation limiting claims arising from the crash to £5000. Apparently licences held by NAC for the route expired on 31 May 1957 but due to administrative bungles had not been renewed on the right forms or submitted to the Air Secretary as required. The jury case for the Kaimai crash claims, set down to be held in the Supreme Court at Auckland on 9 May 1966, was averted when they were settled out of court in late April.

The Kaimai crash of 3 July 1963 marked the end of the "pioneering era" of piston engine airliner accidents on New Zealand scheduled services. It was 25 years after the first accident, a Lockheed L.10 Electra at Auckland's Mangere Aerodrome in May 1938 and, over the years prior to the 1963 crash, there had been a further seven fatal airliner accidents. The Kaimai crash was the last of its kind. The next fatal accident of a scheduled airliner on New Zealand soil was over 20 years later and it was to be more than 30 years before an airliner of similar size to the DC-3 crashed. This was the Ansett New Zealand DHC Dash 8 ZK-NEY which crashed on 9 June 1995, while on approach to Palmerston North. Sadly three passengers and the flight attendant died, but amazingly 17 people survived; very different from DC-3 ZK-AYZ. May the 1963 Kaimai crash continue to stand unchallenged as New Zealand's worst internal air disaster.

Crash Site through the Years

DESPITE ITS RELATIVE INACCESSIBILITY, the crash site of ZK-AYZ has attracted many people. Early on, this was because of the public awareness of the tragedy and the wreckage being clearly visible from the Gordon area and even further afield from Matamata. In the weeks and months following the accident, and over the first summer, so many trampers visited the site that the local Police, in conjunction with the Department of Internal Affairs, requested the Army to cover the aircraft remains so as to dissuade sightseers and help preserve the sanctity of the site.

A demolition team from the 1st Ranger Squadron N.Z.S.A.S. was given the task in late April 1964. One of the team members, Des Anderson, recalls, "I was selected as part of a four-man team; my first tasks were the calculations of the explosive and equipment required. The remainder of the squadron was used as porters to carry all the material to the site, which took two days. There was a party of 14. We used gelnite, cortex fuse, detonators and safety fuse and drilled holes with a petrol driven portable drill. When we first arrived at the crash site on 28 April, one of the corporals said a prayer in Maori and I said my own silent prayer. The drilling of the holes for the explosive took four days. The rock was harder than expected, plus the difficulty of having to rope the drill and the driller up and down the cliff face. The setting and firing of the explosive took only one day."

The efforts of the Army only partially succeeded with some parts of the burnt-

out fuselage being covered but the tailplane, wing and many other pieces remaining exposed. People continued to visit the site, and photographs over the years reveal a changing environment with vegetation gradually taking over and pieces of wreckage being increasingly trampled and moved around by visitors, the weather and natural erosion.

As time has passed and the crash has receded in public memory, the number of people tramping to the site has diminished and nature has been able to take a firmer hold with undergrowth and dense bush growing to conceal the deteriorating aircraft remains. As it is a place where 23 people died it is important that the crash site is respected as hallowed ground.



The port wing of ZK-AYZ, Easter 1964, prior to the Army covering part of the wreckage.
(Jim Sullivan)

The changing wreckage;
Bottom: the trampled wreckage
in April 1967. (Jim Sullivan)

Right: from a different angle
in 1971 with Waikato Tramping
Club member, Nigel Lancaster,
near the tail section.
(Keith Wilkinson)



Part of one of the exhaust manifolds nearly 40 years after the accident.
(Gary Johnstone)



In January 2003 one of the undercarriage legs is still visible near the crash site. (Gary Johnstone)



Tramper Gary Johnstone of Auckland examines the port wing in the Kaimai bush, January 2003. (Gary Johnstone)



*See on yonder height a white bird sleeping,
Whose wings have lately spanned the virgin air
Of morning's strange tempestuous skyways,
And glimpsed the face of thunder in his lair.*

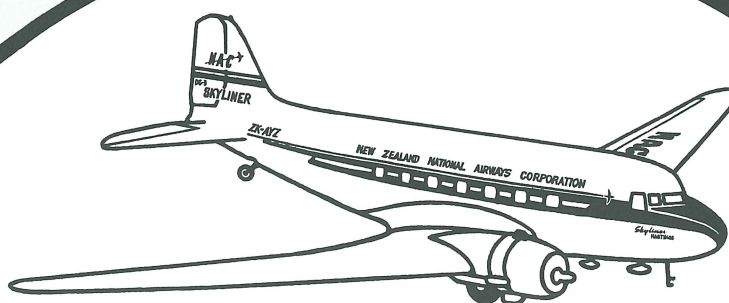
*Through sullen clouds' deep maze and cluttering vestments
That hid the pacing spectre of defeat,
The winging heart beat strong, and certain
That Safety's darkened face held no deceit.*

*All unheard the harsh wind's sudden pleading,
All unseen the tears on icy cheek,
Nor ever knew the hidden mountain's nearness,
Or shrouded towers of high commanding peak.*

*Softly go, and leave a white bird sleeping,
Gathered to the mountain's pitying heart.
Overhead, the dipping wings remember
That this is hallowed ground - apart.*

ESSIE MAY DODD
1963

Reduced size copy of the large plaque located at Gordon, about 18km from Te Aroha and about 18km from Matamata. Measuring 101 x 69cm, it is the focal point of the national memorial to commemorate the crash of DC-3 Skyliner Hastings ZK-AYZ. The memorial is situated on the northeastern roadside of Old Te Aroha Road, about 600 metres southeast from the intersection of Old Te Aroha-Gordon Road and Armadale Road. (Graeme McConnell)



Douglas DC-3 Skyliner ZK-AYZ 'Hastings' of N. Z. National Airways Corporation crashed into the Kaimai Range 9 km northeast from here on 3 July 1963, during a scheduled flight from Auckland to Tauranga.



This plaque placed here in memory of the three crew and twenty passengers who died on Flight 441.

Captain L. D. Enchmarch		First Officer P. G. G. Kissel	
'A'	'B'	'C'	'D'
Mr W. B. Gray	Mr H. E. Lewis	—	—
Miss S. TeR. Seymour	Mr L. J. J. Cartmer	Mr T. H. Grace	Miss S. M. Cooney
Mr H. D. Boddington	Mrs E. E. Boddington	Mr F. Tolerton	Mrs R. Tolerton
Mr N. G. Morris	Mr G. A. Long	—	Mr G. C. F. Flyer
Mr J. R. Hardley	Mr E. L. Goddard	Mr L. F. Taylor	Mr F. C. Pullum
Mrs D. V. Taylor	—	—	Mr K. J. Woodger
Miss E. J. L. Wilson (Hostess)		—	Mr J. Smith

Aircraft Seating Plan for Douglas DC-3 Skyliner ZK-AYZ 'Hastings'.
Flight 441 - 3 July 1963.

At the time this was the worst aviation accident in New Zealand.



Dedicated on 5 July 2003.

Index

- 1st Ranger Squadron N.Z.S.A.S. 57
40 Squadron RNZAF 21
42 Squadron RNZAF 46
Aerial Applicators Ltd 31
Air Department 32, 46, 55
Airline Pilots' Association 46
Airline Review 22
Air Secretary 56
Air Travel (NZ) Ltd 15
Albert Street Car Park Building, Auckland 26
Alexander, Mike 31, 31, 35, 36-38, 38, 41, 42, 43
Alexander Helicopters Ltd 31, 36
Allen, Captain Fred 46
Alpine Sports Club 36
Aluminium Distributors Ltd 25
Amateur Radio Emergency Corps 35
Anderson, Des 57
Ansett ANA 15
Ansett Flying Boat Services 47
Ansett New Zealand Ltd 56
Armer, Constable Owen 33
Attorney-General 55
Auckland 9, 12, 15, 17-20, 22, 24-26, 31, 35, 36, 47, 50, 51, 55, 56, 59
Auckland SAR Co-ordination Centre 28, 45
Auckland School of Architecture 19
Auckland Star 37, 55
Auckland Supreme Court 55, 56
Auckland University Tramping Club 36
Australia 15, 19, 20, 26
Automobile Association 23, 24
Aviation Medical Unit, Wigram 32, 40
Ball, E. 46
Banks Peninsula 22
Barclay, First Officer Laurie 49
Barker, John 35
Bartlett, Mrs G. 36
Baveystock, S. 34
Beacons Airfield, Napier 21
Birkenhead 17, 25
Brady, Mrs S. 36
Bedford Utility truck 31
Beijen, Jan 31, 38, 38, 41, 44, 48
Bell 47-D1 ZK-HAJ 31, 38, 38, 41, 48
Bennett, Reg 36
Bennett, Ron 34, 45
Berlei (NZ) Ltd 25
Birkenhead 17, 25
Blong, Russell 36
Blundell, Denis 46
Board, Errol 28
Boddington, Eleanor Eileen 4, 23, 33
Boddington, Huia Duncan 4, 23, 33
Bristol Freighter NZ5912 15, 28, 31, 36, 37
Brooks, Mrs D. 36
Brooks, Mrs S. 36
Boys' Brigade 25
Browne, Snow 35
Browns Bay locator beacon 14, 17, 23
Cable Price building, Wellington 26
Canterbury University 18
Cartmer, Leonard John James 4, 19, 20, 20, 52
Christchurch 15, 18
Christophersen, Murray 9, 27, 50
Civil Aviation Administration (CAA) 45, 46, 53, 55
Cobb, Constable Laurie 39, 40, 45
Columbia College, Dunedin 18, 52
Cook Hospital, Gisborne 20
Cook Strait 15
Cook Strait Airways 15
Cooney, Des 20
Cooney, Jim 20
Cooney, Shelia Maureen 4, 20, 20
Country Women's Institute (CWI) 39
Court, Ralph 48
Court of Arbitration 46
Court of Inquiry 22, 46-48, 50-55
Coveney, Rev John 38
Dargaville 25
Dargaville High School 25
DC-3 Crew Routine schedule 19
DHC Dash 8 ZK-NEY 56
Davis, Brian 36
de Havilland DH82a Tiger Moth ZK-BNF 31
de Havilland DH83 Fox Moth 15
de Havilland DH89 Dominie 15
Department of Agriculture 20
Department of Internal Affairs 57
Derrick, Father Ewen 35, 38
Distance Measuring Equipment (DME) 11, 23, 27, 53, 54
Dodd, Essie May 60
Dolan, Pat 22
Douglas Aircraft Company 21
Douglas DC-3 Freighter ZK-AQS *Purourou* 15
Douglas DC-3 Freighter ZK-AWO *Putaitai* 15
Douglas DC-3 Freighter ZK-AZM *Karoro* 15
Douglas DC-3 Skyliner ZK-AOF *Waitaki* 15
Douglas DC-3 Skyliner ZK-APK *Kaitioko* 22
Douglas DC-3 Skyliner ZK-AYZ *Hastings* 9, 11, 11, 12, 12, 14, 14, 15, 15, 16, 17, 20, 21, 21, 22, 23, 27, 29, 31, 37, 40, 42, 43, 45-47, 47, 49, 49, 50, 50, 51-53, 54, 55, 57, 57-59, 61
Douglas DC-3 Skyliner ZK-AZN *Napier* 22
Douglas DC-3 Skyliner ZK-BQK *New Plymouth* 9
Douglas DC-3 Viewmaster ZK-BYE *Jean Batten* 49, 50
Draffin, Rod 45
Drake, Richard 35
Dunedin 26
Dutch Air Force 38
East Coast Airways 24
Enchmarsh, Captain Leonard
Derek 4, 9, 11, 14, 17, 17, 27, 53
England 25, 26
Europa Oil (NZ) Ltd 35
Farrelly, Constable Terry 45
Felt and Textiles of New Zealand 12
Feilding 23
Fiji 15
Firth of Thames 51
Fitzell, Tom 28
Flight 396 49
Flight 441 4, 9, 12, 14, 15, 18, 25-27, 38, 52
Flight 712 15
Flight Clearance form 10
Flight Forecast form 10
Flight Plan form 10, 11
Flintoff, Mrs E. 34, 36
Flyer, Graham Clifford Frederick 4, 25, 25
Fokker F-27 Friendship 15, 21, 22, 26
Ford, Rex 37
Forster, John 43
Frankton 35
Fredericks, Hans 42
Fuel Docket 10, 11
Gauld, David 36, 43
General Foods Ltd 25
Giddy, Mrs D. 36
Gisborne 11, 12, 14, 19, 20, 22-26, 41
Gisborne Boys' High School 20, 24
Gisborne Central School 24
Gisborne Gun Club 23
Gisborne High School 24
Gisborne Intermediate School 24
Gisborne Refrigerating Co 24
Goddard, Edward Lionel 4, 25, 25
Gordon 27, 33, 36, 37, 41, 46, 57
Gordon Quarry 9, 28, 30, 30, 31, 32, 34, 34, 35, 36, 38, 39, 39, 40, 41, 42, 43, 45, 46, 53
Gordon School 28, 34, 35, 39
Grace, Able Seaman Tuta Hongara 4, 20, 20
Gray, William Bruce 4, 18, 19, 19
Greenslade Mrs P. 36
Grey Lynn Primary School 25
Gummer, John 32, 45
Haggitt, Nigel 46
Hamilton 12, 15, 22, 25, 32, 46, 47, 49, 50
Hamilton Boys' High School 25
Hardie Boys, Justice 55
Hardley, John Russell 4, 25, 25, 40
Harewood (Christchurch Airport) 15, 18
Harvie, Squadron Leader E.F. 'Ted' 32, 43, 46
Hastings 22, 25, 52
Hawkes Bay Airport 22
Hawkes Bay earthquake 21
Helicopter Services Ltd 31
Henderson, Dr John 31, 32, 34, 40
Hiller UH-12E ZK-HAN 31, 31, 35, 36, 41, 42
HMNZS *Lachlan* 20
HMNZS *Takapu* 20
Hogan, First Officer Gary 11
Hokitika 22
Holyoake, Right Honourable Keith 36, 37
Hooke, Charles 12
Howick 19
ICI (NZ) Ltd 25
Instrument Flight Rules (IFR) 54
Ireland 20
Iona College, Havelock North 23
Isaac, Adrienne 12
James Aviation Ltd 15, 26
Jas. J. Niven and Co. Ltd 25
Jamieson, Rev Roy 38
J. H. Parker Wool Store 52
Johnson, Ann 36, 39
Jill Wilson Memorial Prize for Biology 52
Johnson, Captain Bryan 11
Johnson, Noel 39, 39, 40
Johnstone, Gary 59
Joyce, Reg 28
Kaimai Range 9, 27, 28, 28, 31, 33, 35, 36, 38, 39, 40, 41, 44, 46, 47, 48, 48, 49, 50, 50, 53, 59
Kaiti Works 24
Karori Primary School 17
Kawau Island 31
Kelburn Primary School 26
Kennedy the dog 29
Kerepehi 27, 46
Killinchy, South Canterbury 24
King, John 39, 39
Kings' High School, Dunedin 24
Kissel, First Officer Peter George Guinness 4, 11, 14, 17, 17, 27
Lamont, Peter 32, 34, 36, 39-41, 45
Lancaster, Nigel 38
Lawson, Alistair 23
Lewis, Herbert Edward 4, 18, 19, 19
Lee, Kenneth 9
Lee wave system 48, 49
Lift Slab Australasia Ltd 26
Locke, Noel 28
Lockhart, Simon 46
Lockheed Electra 10A 15, 56
Lockheed Lodestar 15
Long, Gavin Andrew 4, 24, 24
Lord Howe Island 47
Mangere Aerodrome 56
Manawaru 46
Mangaiti 46
Mangapukatea Stream 36
Manning and Donaldson 22
Massey University 12
Matamata 32, 33, 35, 38, 39, 57
Matamata County Council 39
Matamata Police 9, 28
Macalister, Alistair 46
McAlpine, Right Honourable John 37
MacFarlane, Flight Lieutenant Ron 51, 52
McGregor, Mrs E. 36
McGuire, Mrs V. 36
Melbourne 20
Melbourne Cash Ltd 24
Methodist Church 25
Meteorological Service 55
Mills, Constable Garry 44, 45
Minister of Civil Aviation 53, 55
Moera Primary School 26
Morgan, June 34, 36
Morgan, Tauri 28, 34
Morris, Elizabeth 24
Morris, Graham 41
Morris, Norman Geoffrey 4, 24, 24, 41
Motley, Constable Deryck 28, 35
Moulden, Constable Pat 45
Mt Albert Grammar School 25
Mt Eden 26
Mt Ngatamahinerua 36, 37, 39, 41, 50
Mt Roskill 25
NAC Air Centre 12, 35, 36, 45
NAC regional service 15
Napier 11, 12, 14, 22, 25, 26
Napier Boys' High School 19
Neazor, Paul 46
Nelsons (NZ) Ltd 24
New Plymouth 22, 26
New Zealand Apple and Pear Marketing Board 17, 25
New Zealand Apple and Pear Marketing Board Cool Store 52
New Zealand Army 20, 36, 45, 57
New Zealand Broadcasting Corporation 43
New Zealand Forest Products Kinleith Mill 38
New Zealand Gliding Association 48
New Zealand Government 15, 31, 37
New Zealand Institute of Electricians 23
New Zealand National Airways Corporation (NAC) 9, 15, 17, 21, 24, 46, 55, 56
New Zealand National Airways Corporation Act 15
Ngaruawahia 35
Ngata Memorial College 20
Northcote College 25
Northern Territory, Australia 20
North Island 12, 47
Oamaru Airport 15, 22
O'Brien, Wing Commander O. J. 'Paddy' 31, 32, 38, 41, 43, 45, 46, 50
Ohakea 51
Okeby, Roger 12
Okeby 'ticket' 13
Oklahoma City 21
Old Te Aroha Road 28
Paeroa 27
Page, E.F. 'Babe' 46
Palmerston North 12, 14, 25, 56
Papatoteo 20
Papatoteo Horticultural Society 52
Paraparaumu (Wellington Airport) 15
Parker, J.H. 52
Parnell 18
Pattie, Captain Bill 49, 50
Payton, Harry 37
Petone Technical College 26
Pohowhera (Banded Dotterel) 21
Point Chevalier 11
Poverty Bay Electric Power Board 23, 24
Poverty Bay A & P Association 24
Poverty Bay Turf 24
Poverty Bay Racing Club 24
Pukekohe 25
Pullum, Alice 52
Pullum, Frederick Charles 4, 25, 26, 52
Putaruru 31
Repayment date 21
Rotorua 26, 34
"Round the Rocks" 15
Royal Flying Doctor Service, Australia 20
Royal Navy 26
Royal New Zealand Air Force (RNZAF) 15, 17, 21, 32
Royal New Zealand Navy 20
Royal tour 1953/54 15
Ruapehu Ski Patrol 36
Ruatoria 20
Rudnick Helicopters Ltd 31, 38
Ryan, Morgan 28, 29
St John Ambulance 30, 30, 32
St. Joseph of Cluny Sisters, Tauranga 20
St Mary's College, Auckland 20
Sandringham 19
Search and Rescue 28, 41
Seymour, Sarah Te Raumiria 4, 19, 19
Shaftesbury 46
Shaw, Ashley 39
Sheriff, Constable Paul 44, 45
Sister Angela 20
Skyliner advertisement 22
Short S.25 Sandringham flying boat VH-BRE 47
Short S.25 Sunderland flying boat 15
Sinclair, Bronte 30, 35
Smith, John 4, 26, 27
Smyth, David 43
South Pacific Airlines of New Zealand (SPANZ) 15, 21, 49
South Westland 38
Spring-Rice, Barry 32, 34, 36, 37, 39, 45
Stokes, Laurie 28-30
Straits Air Freight Express (SAFE) 15
Takapuna 17
Takapuna Grammar School 17
Tararua Freezing Works 24
Tasman Hotel, New Plymouth 26
Taupo 31
Tauranga 11, 12, 14, 19, 20, 23, 25, 31, 47, 49-54, 56
Tauranga Airport 9, 17, 26, 27
Tauranga Amateur Radio Emergency Corps 34
Tauranga Beacon (NDB) 9, 27, 51, 54
Tauranga Control Zone 52
Tauranga Hospital 32
Tauranga Search and Rescue 30
Taylor, David 26
Taylor, Diane Veronica 4, 26, 26
Taylor, Leslie Frederick 4, 25, 26, 52
Taylor, Louise 52
Tasman Empire Airways Ltd (TEAL) 26, 47
Tasman Sea 47
Te Aroha 9, 45, 46
Te Aroha Maternity Hospital 32
Te Aroha Police Station 33, 38, 45
Te Puke 20
Thames 23, 26
Thames Valley Power Board 34
Thomas, Squadron Leader Dave 46
Thompson, Frank 35, 36
Thompson's Track 28, 29, 39
Timaru Airport 15, 22
Tirau 39
Tokoroa 41
Tole, George 19
Tolerton, Frederick 4, 23, 24, 24, 38
Tolerton, Nelson 38
Tolerton, Ruth 4, 23, 24, 24, 38
Torokina, Bougainville 21
Trans Australian Airlines (TAA) 15
Turnbull and Jones Ltd 19
Twenty Third Psalm 4
Tyndall, Sir Arthur 46
Union Airways 15, 24
University of Auckland 17, 25, 36
Vickers V807 Viscount 15, 21
Victoria Street West, Auckland 12, 36
Wairanga o Kuri School 20
Waharoa (Matamata Aerodrome) 48
Waiheke Island 31
Waihi Amateur Radio Club 35
Waihi College Student Radio Station ZLIAZO 32
Waikato Aero Club Cessna 28
Waikato Federated Mountain Clubs' Search and Rescue 35
Waikato Hospital 32
Waikato Hospital Mortuary 45
Waikato Tramping Club 35, 39
Waipaoa Works 24
Waipukurau 19
Wanganui 12, 15, 31, 38
Wardville 34, 46
Wardville School 39
Watties Foods Ltd 25
Welch, Eddy 29
Wellington 12, 14, 17, 20, 24-26, 32, 37, 46
Wellington Boys' College 24
Wellington College 17
Western Suburbs Radio Club 35
Westport 22
Whakatane 9
Whakapaurangi 20
Whakawhitira School 19
Whenuapai (Auckland Airport) 9, 11, 12, 14, 23, 26, 47, 53, 54
Wild QC, Dick 46
Wilson and Horton Ltd 26
Wilson, Elizabeth Jill Louise 4, 11, 14, 18, 18, 23, 26
Wilson, John 39
Women's Division of Federated Farmers (WDF) 39
Woodbourne Air Force Base, Blenheim 21
Woodger, Kenneth John 4, 26, 27
World War II 15, 20, 21, 25
Yates, Gordon 39

The Author



RICHARD WAUGH was the organiser of the Kaimai Crash Project for the 40th anniversary commemoration. He is an aviation historian who specialises in the researching, writing and publishing of New Zealand airline histories from the 1930s to the 1960s. After attending Gisborne Boys' High School, Nelson's Nayland College and work in the motor industry, he obtained theological qualifications, a BA degree in New Zealand history from Massey University and an MBA management degree from the University of Auckland.

His late father, Brian Waugh, was a pioneer pilot for small airlines in the postwar years and at the time of the Kaimai accident was Chief Pilot for Hokitika-based West Coast Airways. Brian Waugh experienced two aircraft accidents and this family experience has given Richard a personal empathy towards those whose lives have been affected by aviation accidents.

He has worked in a voluntary capacity to commemorate several of New Zealand's major airline accidents and this has involved initiating and organising memorial plaques, contacting relatives and conducting Commemoration Services. Since 1998 he has been Honorary Chaplain to the Guild of Air Pilots and Air Navigators (NZ Region).

Richard is married to Jane, an architect, and they have three young children. He serves as National Superintendent of the Wesleyan Methodist Church of New Zealand and is Senior Minister of East City Wesleyan Church in Auckland.

Left: Richard Waugh in the cockpit of NAC DC-3 Skyliner ZK-BQK New Plymouth, on display at Auckland's Museum of Transport and Technology. On 3 July 1963, after a flight from Whakatane, this DC-3 arrived at Tauranga just 17 minutes after ZK-AYZ was due to have landed. (Deborah Powick)

Text: 9.5/14 Stone Serif
Layout by Craig Printing Company Limited
(from typesetting supplied)
Paper: 128gsm matt art
Book jacket: 300gsm art board
Book design: Ellen van Empel
Printed by Craig Printing Company Limited,
Invercargill, New Zealand.



KAIMAI CRASH

NEW ZEALAND'S WORST INTERNAL AIR DISASTER

Flight 441 from Auckland to Tauranga on 3 July 1963 began as a typical National Airways Corporation DC-3 flight of the era. The passengers represented a cross section of New Zealand society; men and women, Maori and Pakeha, young and old. They were travelling on business, on holiday or to attend family events.

The tragic crash of DC-3 ZK-AYZ into the Kaimai Range and the death of all three crew and 20 passengers was a profound shock to the prosperity and optimism of a growing nation. The accident was front page news for days.

In response there was a huge outpouring of public sympathy with hundreds of volunteers involved in the search, many providing meals and shelter while others extended care to those who had lost loved ones. Helicopters also played a pioneering role in the search and recovery operation. A public inquiry later helped New Zealand draw some safety lessons from this, its worst internal air disaster.

AUCKLAND CITY LIBRARIES

ISBN 0



30001027482050

9 780473 095420

AV

S